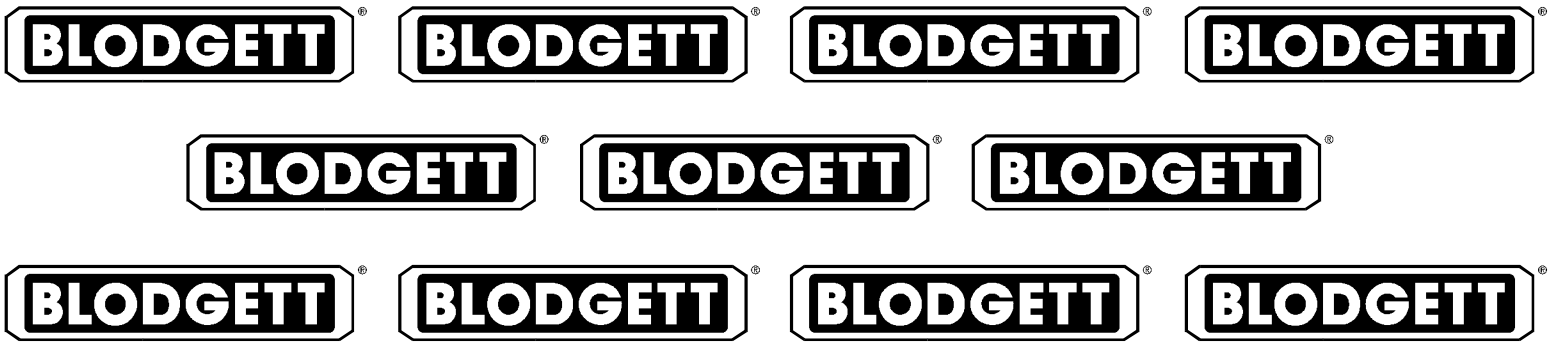

CONTROL INFORMATION

OPERATION AND PROGRAMMING GUIDE FOR BLODGETT OVEN CONTROLS

BLODGETT OVEN COMPANY

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CHAPTER 1

CONVECTION OVEN CONTROLS

SOLID STATE MANUAL CONTROL

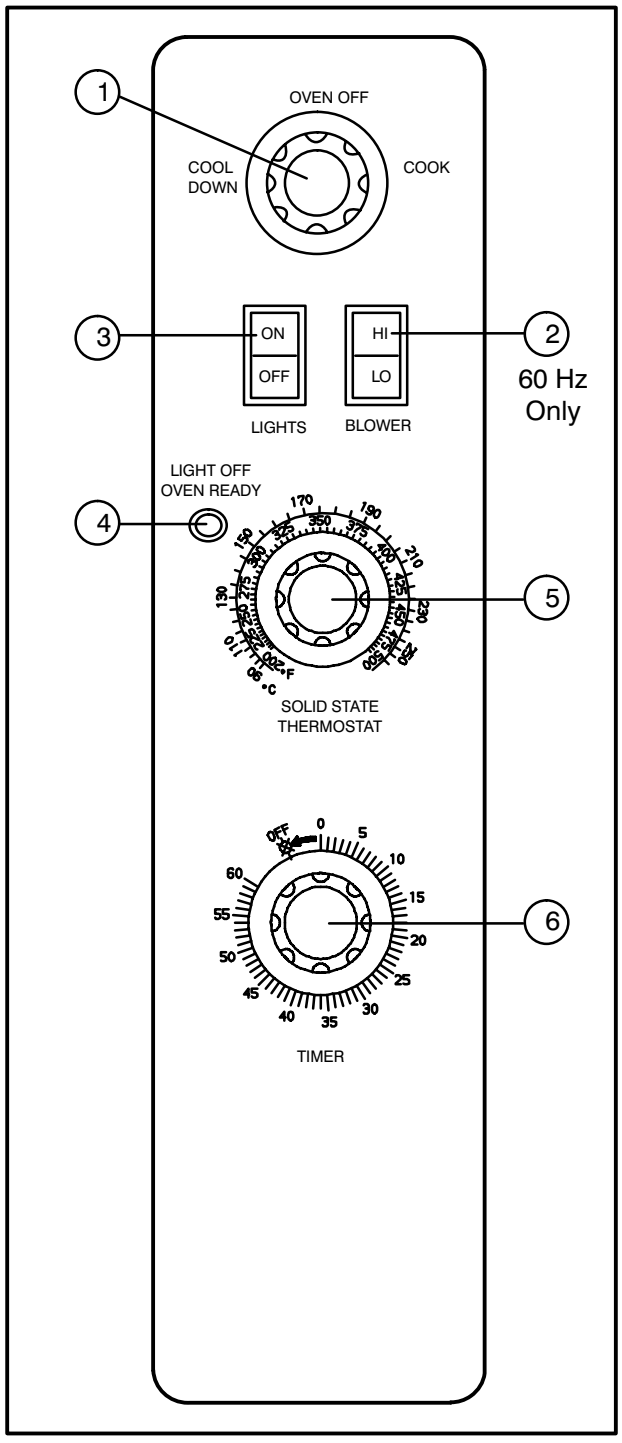


FIGURE 1

CONTROL DESCRIPTION

1. SELECTOR SWITCH – controls power to the oven for cook or cool down.
2. BLOWER SWITCH – controls blower speed, either hi or lo. Two speed not available in 50 Hz.
3. LIGHTS SWITCH – controls interior lights.
4. OVEN READY LIGHT – when lit indicates burner operation. When the light goes out the oven has reached operating temperature.
5. SOLID STATE THERMOSTAT – allows either 8 pre-set temperatures to be selected in accordance with customer requirements, or an infinite selection of temperatures from 200-500°F (95-260°C). (infinite control shown)
6. TIMER – activates an electric buzzer that sounds when the cook time expires.

OPERATION

1. Turn the SELECTOR Switch (1) to *COOK*. The blower and control compartment cooling fan operate and are controlled automatically by the action of the doors.
2. Set the BLOWER Switch (2) to the desired speed.
3. Set the SOLID STATE THERMOSTAT (5) to the desired setting or temperature.
4. Preheat until the OVEN READY LIGHT (4) goes out.
5. Load product into the oven. Determine cook time and set the TIMER (6).
6. When the buzzer sounds, remove the product from the oven. Turn the TIMER knob (6) to *OFF* to silence the buzzer.
7. Turn the SELECTOR Switch (1) to *OVEN OFF*.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

COOK AND HOLD CONTROL

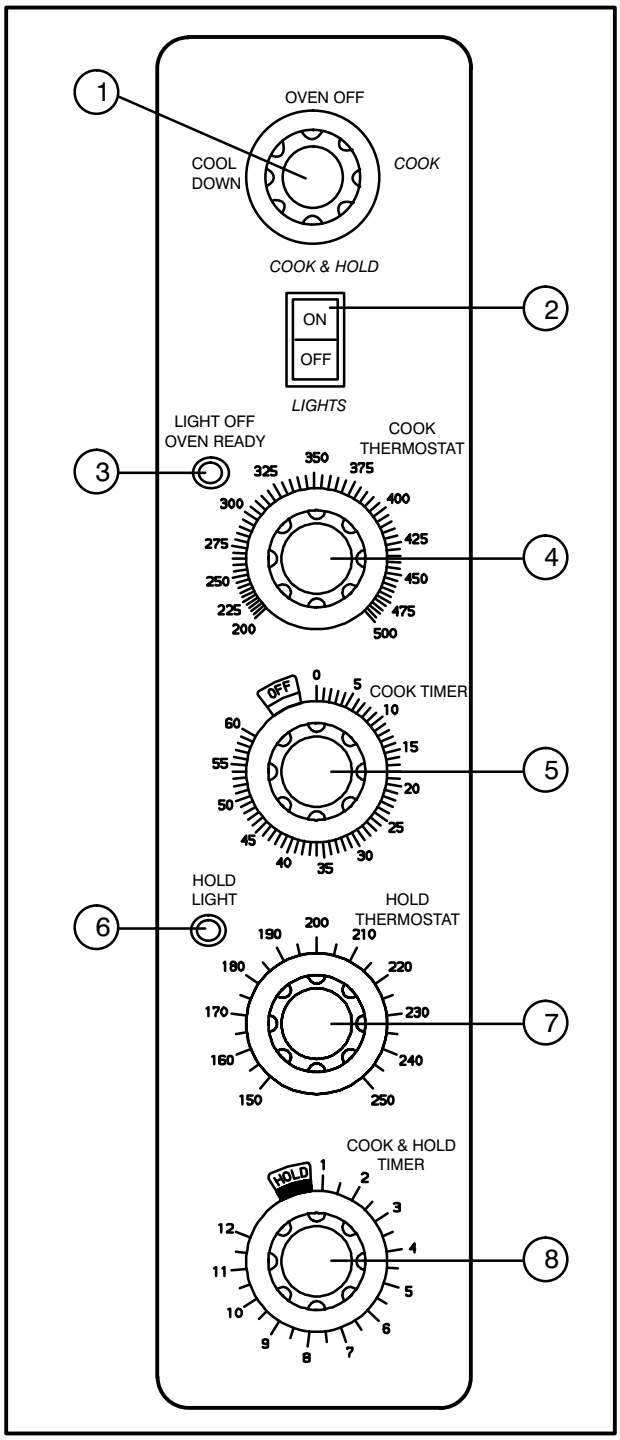


FIGURE 2

CONTROL DESCRIPTION

1. SELECTOR SWITCH – controls power to the oven for cook, cook & hold, and cool down.
2. LIGHTS SWITCH – controls interior lights.
3. OVEN READY LIGHT – when lit indicates burner operation. When the light goes out, the oven has reached operating temperature.
4. COOK THERMOSTAT – controls oven temperature in the cook cycle.
5. COOK TIMER – activates an electric buzzer that sounds when the cook time expires.
6. HOLD THERMOSTAT – controls oven temperature in the hold cycle.
7. HOLD LIGHT - indicates the oven is in hold.
8. COOK & HOLD TIMER – controls the length of cook time from 0 to 12 hours. When the cook time ends, oven temperature control switches from the cook to the hold thermostat.

CONVECTION OVEN CONTROLS

OPERATION

Cook Only:

1. Turn the SELECTOR SWITCH (1) to *COOK*. The blower and control compartment cooling fans operate and are controlled automatically by the action of the doors.
2. Set the COOK THERMOSTAT (4) to the desired temperature.
3. Preheat until the OVEN READY LIGHT (3) goes out.
4. Load product into the oven. Set the COOK TIMER (5) to the desired cook time.
5. When the buzzer sounds, remove the product. Turn the COOK TIMER (5) to *OFF* to silence the buzzer.
6. Turn the SELECTOR SWITCH (1) to *OVEN OFF*.

Cook and Hold:

1. Turn the SELECTOR SWITCH (1) to *COOK*. The blower and control compartment cooling fans operate and are controlled automatically by the action of the doors.
2. Set the COOK THERMOSTAT (4) to the desired cook temperature.
3. Set the HOLD THERMOSTAT (6) to the desired hold temperature.
4. Preheat the oven until the OVEN READY LIGHT (3) goes out.
5. Load product into the oven.
6. Turn the SELECTOR Switch (1) to COOK & HOLD.
7. Set the COOK & HOLD TIMER (8) to the desired cook time.
8. When the cook time ends the oven switches to *HOLD* and the HOLD LIGHT (7) comes on.
9. The oven remains at the hold temperature until the product is removed and the oven is turned off.

   NOTE: In the HOLD cycle, the blower goes on and off with the burner.
10. Turn the SELECTOR SWITCH (1) to *OVEN OFF*.

COOL DOWN

1. For COOL DOWN operation set the SELECTOR SWITCH (1) to *COOL DOWN*.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

BLODGETT IQ2™ CONTROL

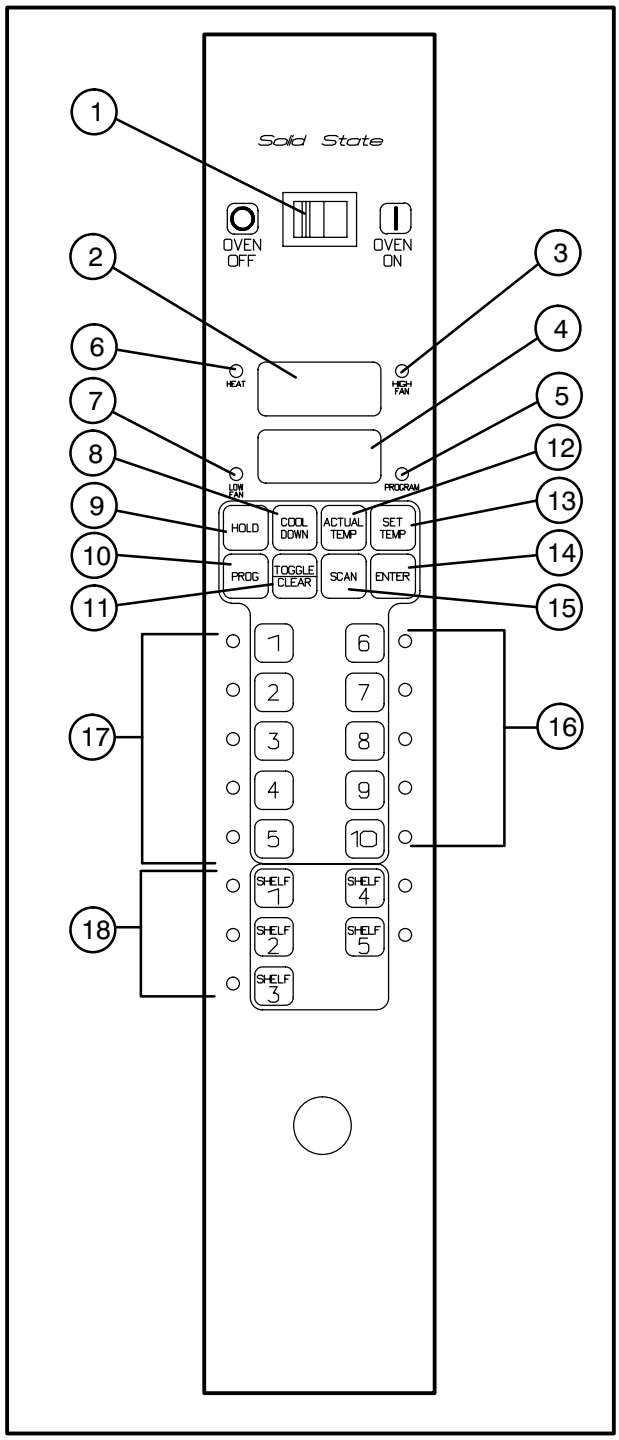


FIGURE 3

COMPONENT DESCRIPTION

1. OVEN POWER SWITCH – controls power to the oven.
2. TOP DISPLAY – displays temperature and other controller related information.
3. FAN HI LED – when lit indicates the fan is running at high speed.
4. BOTTOM DISPLAY – displays cook time and other controller related information.
5. PROG LED – when lit indicates the controller is in the programming mode.
6. HEAT LED – when lit indicates the control is calling for heat.
7. FAN LO LED – when lit indicates the fan is running at low speed.
8. COOL DOWN KEY – press to enter the cool down mode.
9. HOLD KEY – press to enter hold mode.
10. PROG KEY – press to enter the programming mode.
11. TOGGLE/CLEAR KEY – press during programming to toggle options.
12. ACT TEMP KEY – press to display the actual oven temperature.
13. SET TEMP KEY – press to display the programmed cook temperature for the current stage of the product key.
14. ENTER KEY – press to enter new values into product key programming. Also used to view recovery time.
15. SCAN KEY – completes the programming for the current parameter and advances the controller to the next parameter. Press to view time remaining on multiple cook cycles.
16. PRODUCT LEDS – when lit indicate which product keys are currently in use or programmed for the current oven temperature and fan speed.
17. PRODUCT KEYS – assigns a key to a programmed recipe and begins a programmed cooking process.
18. SHELF KEYS – assigns a shelf key.

CONVECTION OVEN CONTROLS

OVEN OPERATION

Oven Startup:

1. Toggle the POWER SWITCH (1) to *ON*. The oven preheats to the lowest programmed first stage temperature. The LEDS (16) for all products with the same first stage temperature light.

   While the unit preheats the TOP DISPLAY (2) gives the set temperature. The BOTTOM DISPLAY (4) reads *Lo* if the oven is more than 10° below setpoint. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *Ready*.

Single Product Cooking Procedure:

NOTE: If the led next to the desired product key is lit skip step 1.

1. Press the desired PRODUCT KEY (17). The oven preheats to the first stage temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *Ready*.
2. Load the product into the oven. Press the desired PRODUCT KEY (17).

   If the shelf timing function is toggled on for that product key, the top display reads *SHLF* and the bottom display reads the programmed product's time. Press a SHELF KEY (18) to assign the product to that shelf and start the cook cycle. The top display reads *SHLF*, the bottom display gives the shelf #. Within five seconds, the top display reads *SH-1*, the bottom display gives the remaining cook time.

   If the shelf timing function is toggled off for that product key, pressing the product key will start the cook cycle. The TOP DISPLAY (2) reads ––––. The BOTTOM DISPLAY (4) counts down the cook time in minutes: seconds.

   NOTE: If the selected product has a cook time of greater than 59:59 the top display reads Hr–– for the total number of hours. The bottom display counts down the cook time in minutes:seconds.

   NOTE: If the selected product is a single stage recipe the LEDS for all single stage products with the same cook temperature and fan speed will light. If the selected product is a multiple stage recipe no other product LEDS will light.

   NOTE: Press and hold the selected product key for three seconds to cancel the cook cycle for normal operation. To cancel the cook cycle when using shelf timing, press and hold the SHELF KEY (18) for 3 seconds or press TOGGLE/CLEAR (11) and the corresponding shelf key.

3. When the cook time expires an alarm sounds and the top display reads *donE*.
4. Press the selected product key to silence the alarm. Remove the product. If shelf timing is used, press the flashing SHELF KEY (18) to silence the alarm.

Multiple Batch Cooking Procedure:

This procedure is for single stage recipes with the same cook temperature and fan speed only.

NOTE: If the led next to the first desired product key is lit skip step 1.

1. Press the first desired PRODUCT KEY (17). The LEDS for all recipes with the same cook temperature and fan speed will light.

   The oven preheats to the cook temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *Ready*.

2. Load the product into the oven. Press the desired PRODUCT KEY (17).

   If the shelf timing function is toggled on for that product key, the top display reads *SHLF* and the bottom display reads the programmed product's time. Press a SHELF KEY (18) to assign the product to that shelf and start the cook cycle. The top display reads *SHLF*, the bottom display gives the shelf #. Within five seconds, the top display reads *SH-1*, the bottom display gives the remaining cook time.

   If the shelf timing function is toggled off for that product key, pressing the product key will start the cook cycle. The TOP DISPLAY (2) reads ––––. The BOTTOM DISPLAY (2) counts down the cook time in minutes: seconds.

3. Load the second product. Press the appropriate PRODUCT KEY (17). Press a SHELF KEY (18) to activate shelf timing.

   NOTE: Only products with lighted LEDS may be selected.

4. The top display reads *SHLF*. The bottom display gives the numbers of the shelves that have been assigned. Within five seconds the shelf with the least amount of time remaining is displayed. The led for the product with the least time remaining flashes faster than the led for the other products.

   NOTE: To view the remaining cook time for the other products press and hold the SCAN KEY (15). The bottom display cycles through the remaining cook times for each product. Only the led for the product with the cook time displayed will be lit.

5. When a cook time expires an alarm sounds. The top display reads *donE*. The led for the finished product lights. All other LEDS are dark.

6. Press the SHELF KEY (18) for the finished product to silence the alarm. Remove the product. Close the oven door. The TOP DISPLAY (2) reads *SH-X* for the shelf with the least amount of cook time. The BOTTOM DISPLAY (4) counts down the cook time for the other product.

7. When the cook time expires an alarm sounds and the top display reads *donE*.

8. Press the SHELF KEY (18) to silence the alarm. Remove the product.

Oven Cool Down:

1. Close the oven door. Press the COOL DOWN KEY (8).

NOTE: Cool down cannot be activated with the oven door open. Once the cool down cycle has begun the doors may be opened to speed the cooling process.

PROGRAMMING SINGLE STAGE RECIPES

Entering the Programming Mode:

1. Press and hold the PROG KEY (10). The top display reads *CodE*.

2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (14). The top display reads *Prod*.

3. Press the desired product key followed by the ENTER KEY (14).

NOTE: During the programming process you may: Press the TOGGLE/CLEAR KEY (11) to erase the current setting or toggle between specific settings. Press the SCAN KEY (15) to move to the next programming function keeping the current setting the same. Press the PROG KEY (10) to exit the programming mode.

Programming the Cook Time:

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new cook time. Press the ENTER KEY (14) to save the new cook time.

2. The top display reads P2:__. The control is asking for the cook time for stage 2 of this recipe. Press the TOGGLE/CLEAR KEY (11) to enter a time of 0:00:00 for P2:.

   NOTE: This tells the controller that there are no more stages for this recipe. Once a single stage recipe has been established the control will only allow entries for one stage on all further parameters for this product.

3. Press the ENTER KEY (14) again. The top display reads P1:. The bottom display shows the cook time.

4. Press the SCAN KEY (15) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct–1*. The bottom display gives the current cook temperature. Use the product keys to enter the desired cook temperature.

2. Press the SCAN KEY (15) to advance the programming mode to fan speed.

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed. Press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *HI* and *Lo.*

2. Press the SCAN KEY (15) to advance the programming mode to the fan cycle time.

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle. Press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. If heat or full are selected press the SCAN KEY (15) to save the new fan cycle and advance to timing mode.

   If pulse is selected press the SCAN KEY (15) and continue with Steps 3–4 to program the pulse cycle.
3. The top display reads *on–1*. The bottom display gives the current pulse on time. Use the product keys to enter the desired pulse on time from 10 to 60 seconds. Press the SCAN KEY (15).
4. The top display reads *of–1*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (15) to advance the programming mode to shelf mode.

Programming the Shelf ID:

The Shelf ID option can be turned on or off for specific product keys.

NOTE: Shelf ID is not allowed with multiple stage recipes.

1. The top display reads *SHLF*. The bottom display reads the current shelf ID mode. Press the TOGGLE/CLEAR KEY (11) to toggle between yes and no. Press the SCAN KEY (15) to advance the programming mode to timing.

Programming the Timing Mode:

There are 3 options for timing mode: Straight, Flex and Sensitivity.

1. The top display reads *tC–1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (11) to toggle between *St*, *FL* and *SE*ns.

   NOTE: Sensitivity adjusts the cook time to compensate for any difference between the setpoint and actual temperature. The lower the sensitivity value the shorter the time adjustment. Sensitivity values are set in the manager level programming.

   If Shelf ID is activated, all three timing modes are available. If Shelf ID is not activated, only straight or flex timing modes are available.
2. Press the SCAN KEY (15) to advance the programming mode to hold mode.

Programming Hold Mode:

The hold mode can be toggled on or off for specific product keys.

1. The top display reads *HOLD*. The bottom display reads the current hold mode. Press TOGGLE/CLEAR KEY (11) to toggle between on and off. Press the SCAN KEY (15).
2. If the hold mode is activated, the bottom display give the current hold time. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new hold time. Press the SCAN KEY (15).
3. The bottom display gives the current hold temperature. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new hold temperature from 140-210°F (60-99°C). Press the SCAN KEY (15).
4. The top display reads *HFAN* (hold fan speed). The bottom display gives the current hold fan speed setting. Press the TOGGLE/CLEAR KEY (11) to toggle between high and low. Press the SCAN KEY (15) to exit the hold mode programming.

Check all Settings (SEE Mode):

The SEE mode allows the operator to scroll through and view settings of a particular product key.

1. Press the PROG KEY (10). The top display reads *Code*.
2. Use the product keys to enter the SEE access code: 2 4 4 4. Press the ENTER KEY (14). The top display reads *SEE*.
3. Press the product key you wish to view. Press the ENTER KEY (14).
4. The control will automatically scroll through the programmable features showing the programmed values for each.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (10). The control returns to operating mode.

PROGRAMMING MULTIPLE STAGE RECIPES

Entering the Programming Mode:

1. Press and hold the PROG KEY (10). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (14). The top display reads *Prod*.
3. Press the desired product key followed by the ENTER KEY (14).

Programming the Cook Time:

NOTE: When multiple stage cooking is being used, the countdown time displayed during cooking is the sum of all stages.

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new cook time. Press the ENTER KEY (14) to save the new cook time.
2. The top display reads P2:__. The control is asking for the cook time for the second stage of this recipe. Repeat Step 1 for each additional stage.
3. When the cook times for all stages are programmed, press the TOGGLE/CLEAR KEY (11) to clear the bottom display.

   NOTE: This tells the controller that there are no more stages for this recipe. Once the number of stages has been established the control will only allow entries for these stages on all further parameters for this product.

4. Press the ENTER KEY (14) again. The display reads P1:. The bottom display shows the cook time.
5. Press the SCAN KEY (15) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct–1*. The bottom display gives the current cook temperature for stage 1 of this recipe. Use the product keys to enter the desired cook temperature.
2. Press the ENTER KEY *(14)* to save the new cook temperature for stage 1. The top display reads Ct–2.

   NOTE: Repeat Steps 1–2 to program the cook temperature for additional stages. When the cook temperature for the final stage has been entered the top display reads Ct–1.

3. Press the SCAN KEY (15) to advance the programming mode to fan speed

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed. Press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *HI* and *Lo.*
2. Press the SCAN KEY (15) to advance the programming mode to the fan cycle time.

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle for stage 1. Press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. Press the ENTER KEY *(14)* to save the new fan cycle for stage 1. The top display reads *CYC2*.

   NOTE: Repeat Steps 1–2 to program the fan cycle for additional stages.

3. When the fan cycle for the final stage has been entered press the SCAN KEY (15).

   If no pulse cycles are programmed the control advances to timing mode.

   If pulse is used, the control returns to the first stage programmed for the pulse fan option. Follow Steps 4–5 to program the pulse on and off time.

4. The top display reads *on–x*. The bottom display gives the current pulse on time for this stage. Use the product keys to enter the desired pulse on time from 10 to 60 seconds. Press the SCAN KEY (15).
5. The top display reads *of–x*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (15). The

control advances to the next stage programmed for the pulse fan option.

NOTE: Repeat Steps 4–5 to program cycle times for all pulse fan stages. When the final pulse off time has been entered the control advances to timing mode.

Programming the Timing Mode:

NOTE: It may be necessary to press the ENTER KEY (14) until the top display reads tC–1.

There are 2 options for timing mode: Straight and Flex.

1. The top display reads *tC–1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (11) to toggle between *St*, and *FL*.
2. Press the ENTER KEY *(14)* to save the new timing mode for stage 1. The top display reads *tC–2*.

   NOTE: Repeat Steps 1–2 to program the timing mode for additional stages.
3. When the timing mode for the final stage has been entered press the SCAN KEY (15).

Programming Hold Mode:

The hold mode can be toggled on or off for specific product keys.

1. The top display reads *HOLD*. The bottom display reads the current hold mode. Press TOGGLE/CLEAR KEY (11) to toggle between on and off. Press the SCAN KEY (15).
2. The bottom display give the current hold time. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new hold time. Press the SCAN KEY (15).
3. The bottom display gives the current hold temperature. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter the new hold temperature from 140-210°F (60-99°C). Press the SCAN KEY (15).
4. The top display reads *HFAN* (hold fan speed). The bottom display gives the current hold fan speed setting. Press the TOGGLE/CLEAR KEY (11) to toggle between high and low. Press the SCAN KEY (15) to exit the hold mode programming.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (10). The control returns to operating mode.

MANAGER LEVEL PROGRAMMING

Entering the programming mode

1. Press the PROG KEY (10). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 4 5 1 2. Press the ENTER KEY (14). The top display reads *SYS*.

Programming hold

Hold allows product to be kept warm in the oven at a programmed time and temperature by pressing the HOLD KEY (9).

1. Press the SCAN KEY (15). The top display reads *Hold*. Press the TOGGLE/CLEAR KEY (11) to toggle between *YES* and *no*. Press the SCAN KEY (15).

   If no is chosen:

   A.) Press the SCAN KEY (15) to advance to programming the setback mode.

   If yes is chosen:

   A.) The top display reads *HOLD*. The bottom display gives the current hold time. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter a hold time from 0 to 9 hours. Press the SCAN KEY (15) to enter the new hold time (HR:MN)..

   B.) The top display reads *HOLD*. The bottom display gives the current hold temperature. Press the TOGGLE/CLEAR KEY (11). Use the product keys to enter a hold temperature from 140°F–210°F. Press the SCAN KEY (15) to enter the new hold temperature.

   C.) The top display reads *H FAn*. The bottom display gives the current fan mode. To change the fan mode press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *Hi* and *Lo*. Press the SCAN KEY (15) to enter the new fan mode and continue with programming the setback mode.

Programming the setback mode

The setback mode operates as a power saving feature. After a period of non-use (the setback time) the oven temperature automatically decreases to the setback temperature. The oven will maintain this temperature until a product key is pressed. The minimum setback time is 20:00.

1. The top display reads *SEtb*. The bottom display gives the setback mode. To change the setback press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *YES* and *no*. Press the SCAN KEY (15).

   If no is chosen:

   A.) The controller advances to programming the temperature mode.

   If yes is chosen:

   A.) The bottom display gives the current setback time. Press the TOGGLE/CLEAR KEY (11). Use the product keys to the enter the desired setback time. Press the SCAN KEY (15) to enter the new setback time.

   B.) The bottom display gives the current setback temperature. Press the TOGGLE/CLEAR KEY (11). Use the product keys to the enter a setback temperature from 140°F–300°F. Press the SCAN KEY (15) to enter the new setback and continue with programming the temperature mode.

Programming the temperature mode (°F or °C)

1. The top display reads *dEg*. The bottom display gives the units. To change the units press the TOGGLE/CLEAR KEY (11). The bottom display toggles between *F* and *C*.
2. Press the SCAN KEY (15) to enter the new temperature units and continue programming the shelf sensitivity.

Programming the shelf sensitivity

The controller allows the user to program a sensitivity value (0–9) for each shelf position. The sensitivity value will shorten or stretch cook time depending upon shelf position.

NOTE: SEN1 is the top shelf position, SEN5 is the bottom shelf position.

1. The display reads SEN1.
2. Press the TOGGLE/CLEAR KEY (11) to clear the current value to the desired value. Use the product key numbers to input a new sensitivity value.
3. Press the SCAN KEY (15) to advance to the next shelf position, SEN2.
4. Repeat steps 2–3 for all five shelf positions.

Exiting the programming mode

1. The top display reads *SYS*. Press the PROG KEY (10). The control returns to the operating mode.

ERROR CODES AND ALARMS

NOTE: The error codes will appear in the top display. All error codes are accompanied by an audible alarm.

Hi	Oven temperature is more than 40°F above the highest setpoint.
Prob	Probe failure.
HEAT ERR	From a cool start (below 140°F), the oven takes more than 10 minutes to climb from 150-300°F. Press the TOGGLE/CLEAR KEY (11) to clear the prompt. This code indicates a problem with the system. Contact a service technician.
FAN ERR	Indicates a fan failure during a call for heat. Press the TOGGLE/CLEAR KEY (11) to clear the alarm. The FAN ERR display remains active. Press the TOGGLE/CLEAR KEY (11) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.
FANC ERR	Indicates a contact failure has occurred in the fan control circuit. Press the TOGGLE/CLEAR KEY (11) to clear the alarm. The FANC ERR display remains active. Press the TOGGLE/CLEAR KEY (11) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.
DOOR OPEN	The controller senses the door is open. Close the door. If the door is closed contact a service technician.

FACTORY LEVEL PROGRAMMING

Entering the programming mode

1. Press the program key. The top display reads *CodE*.
2. Use the product keys to enter the factory programming accss code: 4 5 2 3. Press the enter key. The top dislay reads *Fact*.

Programming the oven configuration

1. Press the SCAN KEY. The display rads *Appl*.
2. Press the TOGGLE/CLEAR KEY to toggle between electric oven and gas oven. Set the choice for the oven type. Press the SCAN KEY to enter the choice.
3. Press the TOGGLE/CLEAR KEY to toggle between half sized or full sized oven. Set the choice for the oven type. Press the SCAN KEY to enter the choice.

NOTE: Mark V and DFG-100 are full sized ovens. CTB and DFG-50 are half sized ovens.

Programming the temperature offset

1. The top display reads *oFF*. The bottom display reads *SEt*.
2. Press the SCAN KEY. The top display reads *oFST*. The bottom display reads either *xxF* or *–xxF*.
3. Press the TOGGLE/CLEAR KEY to toggle between positive and negative. Use the product keys to the enter the desired temperature offset.
4. Press the SCAN KEY to enter the new temperature offset.

Enabling/Disabling the fan error detection circuit

1. The top display reads *FanC. T*he bottom display reads *YES* or *NO*.
2. Press the TOGGLE/CLEAR KEY to toggle between choices.
3. Press scan to move to next operating parameter.

Programming fan speed option

1. The top display reads *FanS*. The bottom display reads *1* or *2*.
2. Press the TOGGLE/CLEAR KEY to toggle between choices: 1 for a single speed motor or 2 for a two speed motor.
3. Press SCAN to move to the next operating parameter.

Programming the maximum temperature setpoint

1. The top display reads *tELt* (temperature limit) and the bottom display reads either 500 or 550.
2. Press the TOGGLE/CLEAR key to toggle between choices 500°F or 550°F maximum temperature setting.
3. Press scan to enter the maximum setpoint temperature.

NOTE: Use 500 °F for the DFG-100, DFG-200, Mark V, CTB and DFG-50. Use 550 °F for the DFG-100 XCEL and Mark V XCEL.

Exiting the factory programming mode

1. The top display reads *Fact*. Press the PROG KEY. The control returns to the operating mode.

PULSE PLUS

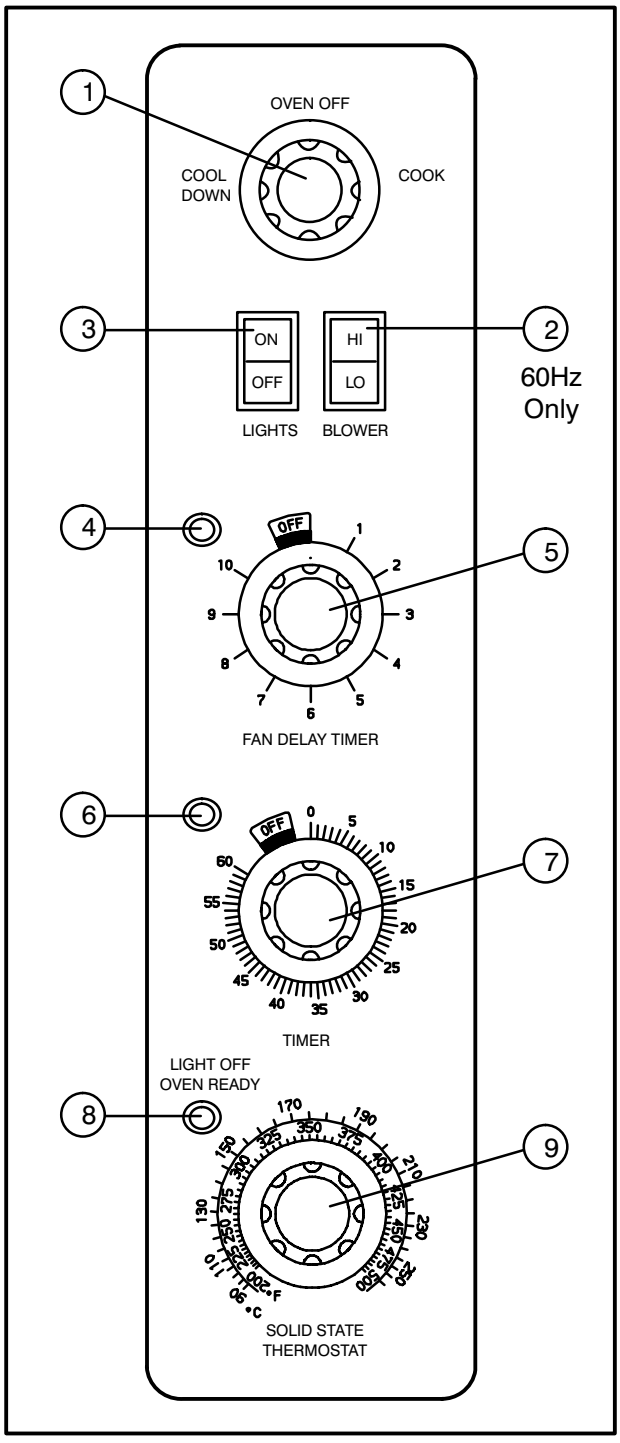


FIGURE 4

CONTROL DESCRIPTION

1. SELECTOR SWITCH – controls power to the oven for cook or cool down.
2. BLOWER SWITCH – controls blower speed, either hi or lo. Two speed not available in 50 Hz.
3. LIGHTS SWITCH – controls interior lights.
4. AMBER FAN DELAY LIGHT – indicates the oven is in pulse plus.
5. FAN DELAY TIMER – activates pulse plus for 0-10 minutes. The blower and burners pulse on for 30 seconds and off for 30 seconds for the duration of time set.
6. RED INDICATOR LIGHT – indicates oven is in the cook timer cycle.
7. COOK TIMER – activates an electric buzzer that sounds when the cook time expires.
8. OVEN READY LIGHT – when lit indicates burner operation. When the light goes out, the oven has reached operating temperature.
9. SOLID STATE THERMOSTAT – allows either 8 pre-set temperatures to be selected in accordance with customer requirements, or an infinite selection of temperatures from 0-500°F (0-260°C). (infinite control shown)

OPERATION

1. Turn the SELECTOR Switch (1) to *COOK*.
2. Set the SOLID STATE THERMOSTAT (9) to the desired cook temperature.
3. Preheat the oven until the OVEN READY LIGHT (8) goes out.
4. Load product into the oven.
5. Set FAN DELAY TIMER (5) for the desired time for pulse plus operation.
6. Set the COOK TIMER (7) for the desired cook time.
7. When the buzzer sounds, remove product from the oven. Turn the TIMER (7) knob to *OFF* to silence the buzzer.
8. Turn the SELECTOR SWITCH (1) to *OVEN OFF.*

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

HUMIDAIRE

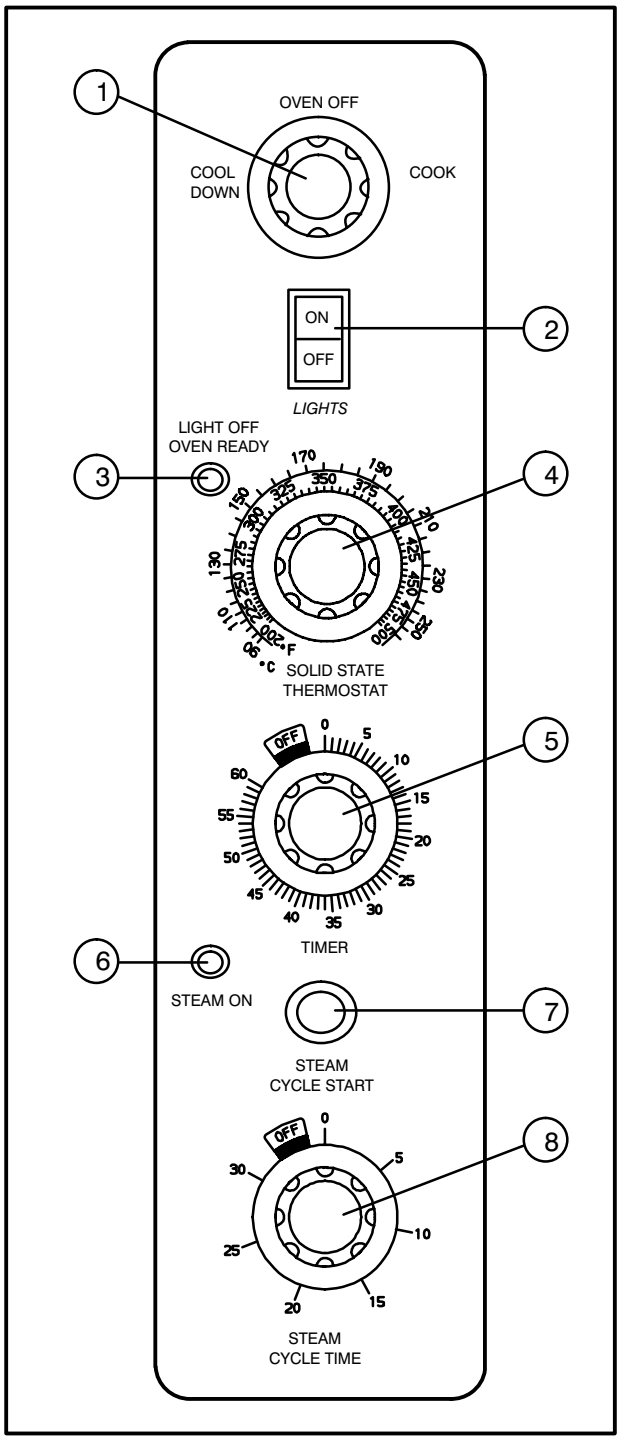


FIGURE 5

CONTROL DESCRIPTION

1. SELECTOR SWITCH – controls power to the oven for cook or cool down.
2. LIGHTS SWITCH – controls interior lights.
3. OVEN READY LIGHT – when lit indicates burner operation. When the light goes out, the oven has reached operating temperature.
4. SOLID STATE THERMOSTAT - allows either 8 pre-set temperatures to be selected in accordance with customer requirements, or an infinite selection of temperatures from 200-500°F (95-260°C). (infinite control shown)
5. TIMER – activates an electric buzzer that sounds when the timer expires to alert the operator to remove the product.
6. STEAM ON INDICATOR LIGHT – lights when steam is being injected into the oven.
7. STEAM CYCLE START BUTTON – activates steam injection for one complete cycle.
8. STEAM CYCLE TIME SWITCH – sets desired length of steam cycle from 0 to 30 seconds.

OPERATION

1. Turn the SELECTOR SWITCH (1) to *COOK*.
2. Set the SOLID STATE THERMOSTAT (4) to the desired cook temperature.
3. Preheat until OVEN READY light (3) goes out.
4. Load product into the oven. Set the TIMER (5) to the desired cook time.
5. Set the STEAM CYCLE TIME SWITCH (8) for the desired length of steam injection.
6. Press STEAM CYCLE START (7). When the temperature is at or above 225°F (107°C), the solenoid valve opens. The blue STEAM ON indicator light (6) comes on. The steam injection cycle may be repeated as often as desired.
7. When the buzzer sounds, remove the product. Turn the TIMER (5) to *OFF* to silence the buzzer.
8. Turn the SELECTOR SWITCH (1) to *OVEN OFF*.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

ZEPHAIRE CONTROL — SINGLE SPEED BLOWER

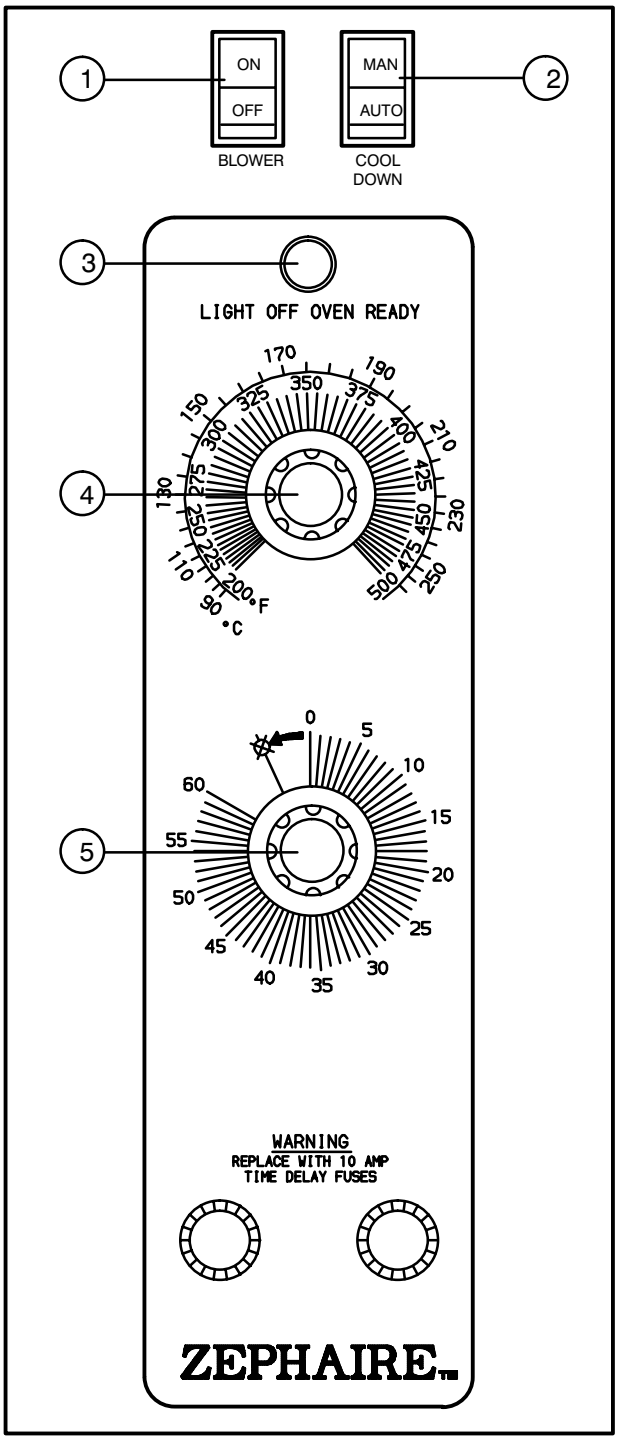


FIGURE 6

CONTROL DESCRIPTION

1. BLOWER ON/OFF SWITCH — Controls the operation of the blower. If the blower switch is in the OFF position the oven will be turned off.
2. COOL DOWN SWITCH — When the switch is in the AUTO position, the oven can be used to cook. When the switch is in the MAN position, the oven is cooling down for the next bake.
3. OVEN READY LIGHT - When lit indicates elements are heating. When the light goes out the oven has reached operating temperature.
4. THERMOSTAT - Controls the temperature at which the oven will operate. Temperatures can range from 200-500°F (93-260°C).
5. COOK TIMER - Used to time the length of the cooking operation. When the set time expires, a buzzer will sound.

OPERATION

1. Set the COOL DOWN switch (2) to the AUTO position. Turn the THERMOSTAT (4) to the desired operating temperature.
2. Set the BLOWER ON/OFF SWITCH (1) to the *ON* position. When the OVEN READY light (3) goes out, load the product and set the COOK TIMER (5).
3. When the timer sounds, remove the product. If the next product requires a lower operating temperature, then the cool down mode can be used. Turn the COOL DOWN SWITCH (2) to the MAN position. Make sure that the door is open.
4. Turn the oven off by setting the BLOWER ON/OFF SWITCH (1) to the *OFF* position.

ZEPHAIRE CONTROL — SINGLE SPEED BLOWER WITH CAVITY LIGHTS

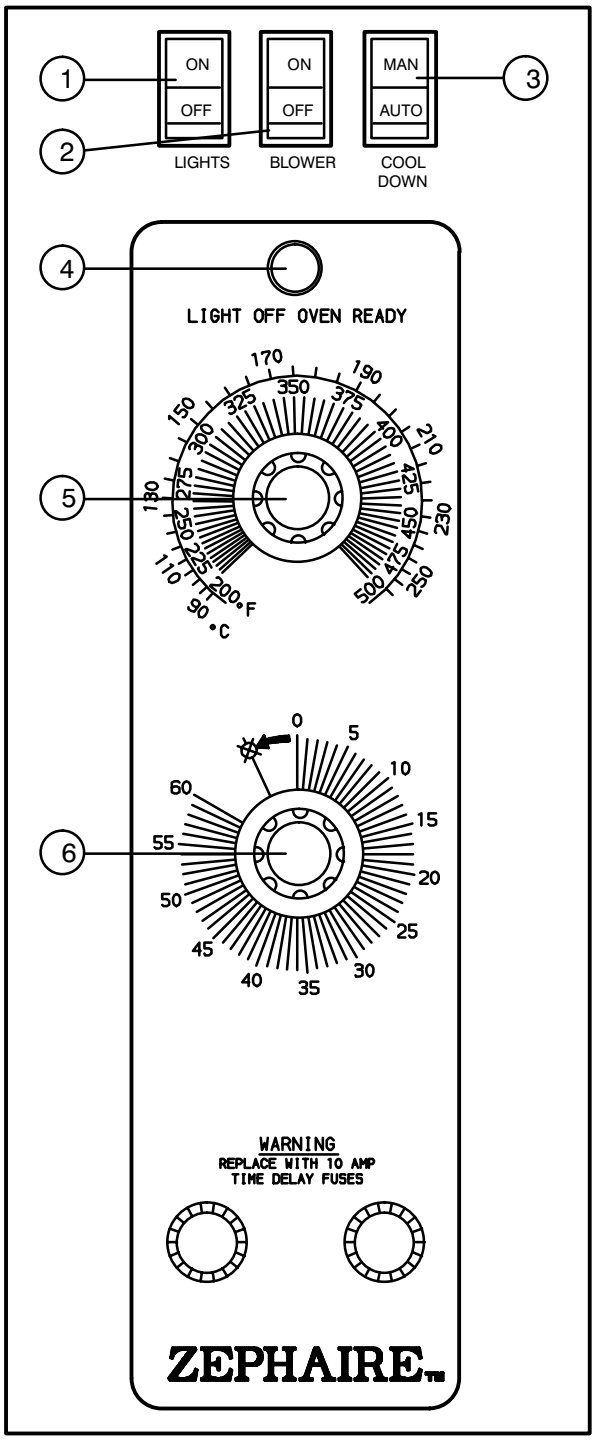


FIGURE 7

CONTROL DESCRIPTION

1. CAVITY LIGHTS ON/OFF — Operates the oven cavity lights.
2. BLOWER ON/OFF SWITCH — Controls the operation of the blower. If the blower switch is in the OFF position the oven will be turned off.
3. COOL DOWN SWITCH — When the switch is in the AUTO position, the oven can be used to cook. When the switch is in the MAN position, the oven is cooling down for the next bake.
4. OVEN READY LIGHT - When lit indicates elements are heating. When the light goes out the oven has reached operating temperature.
5. THERMOSTAT - Controls the temperature at which the oven will operate. Temperatures can range from 200-500°F (93-260°C).
6. COOK TIMER - Used to time the length of the cooking operation. When the set time expires, a buzzer will sound.

OPERATION

1. Set the COOL DOWN switch (3) to the AUTO position. Turn the THERMOSTAT (5) to the desired operating temperature.
2. Set the BLOWER ON/OFF SWITCH (2) to the *ON* position. When the OVEN READY light (4) goes out, load the product and set the COOK TIMER (6).
3. When the timer sounds, remove the product. If the next product requires a lower operating temperature, then the cool down mode can be used. Turn the COOL DOWN SWITCH (3) to the MAN position. Make sure that the door is open.
4. Turn the oven off by setting the BLOWER ON/OFF SWITCH (2) to the *OFF* position.

ZEPHAIRE CONTROL — DUAL SPEED BLOWER

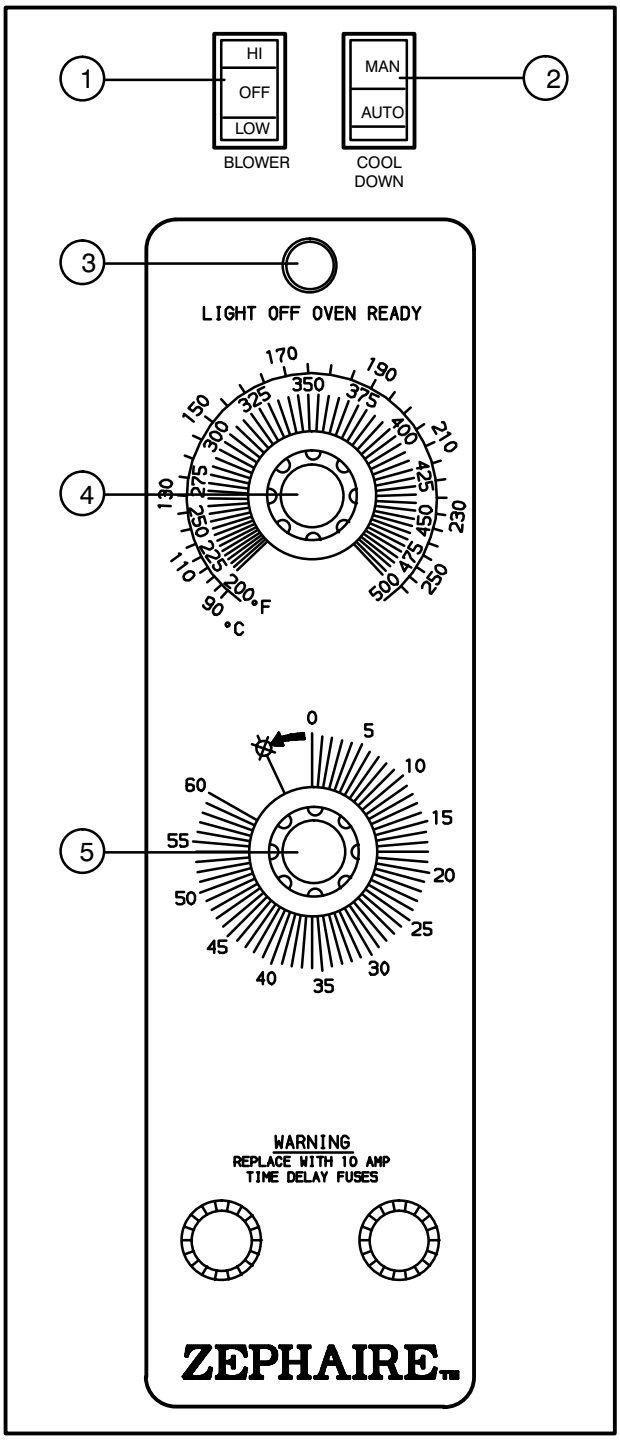


FIGURE 8

CONTROL DESCRIPTION

1. BLOWER HI/LO/OFF SWITCH — Controls the operation of the blower. If the blower switch is in the OFF position the oven will be turned off.
2. COOL DOWN SWITCH — When the switch is in the AUTO position, the oven can be used to cook. When the switch is in the MAN position, the oven is cooling down for the next bake.
3. OVEN READY LIGHT - When lit indicates elements are heating. When the light goes out the oven has reached operating temperature.
4. THERMOSTAT - Controls the temperature at which the oven will operate. Temperatures can range from 200-500°F (93-260°C).
5. COOK TIMER - Used to time the length of the cooking operation. When the set time expires, a buzzer will sound.

OPERATION

1. Set the COOL DOWN switch (2) to the AUTO position. Turn the THERMOSTAT (4) to the desired operating temperature.
2. Set the BLOWER SWITCH (1) to the *HI* position. When the OVEN READY light (3) goes out, load the product and set the COOK TIMER (5).
3. When the timer sounds, remove the product. If the next product requires a lower operating temperature, then the cool down mode can be used. Set the BLOWER SWITCH (1) to the *LO* position. Turn the COOL DOWN SWITCH (2) to the MAN position. Make sure that the door is open.
4. Turn the oven off by setting the BLOWER SWITCH (1) to the *OFF* position.

ZEPHAIRE CONTROL — DUAL SPEED BLOWER WITH CAVITY LIGHTS

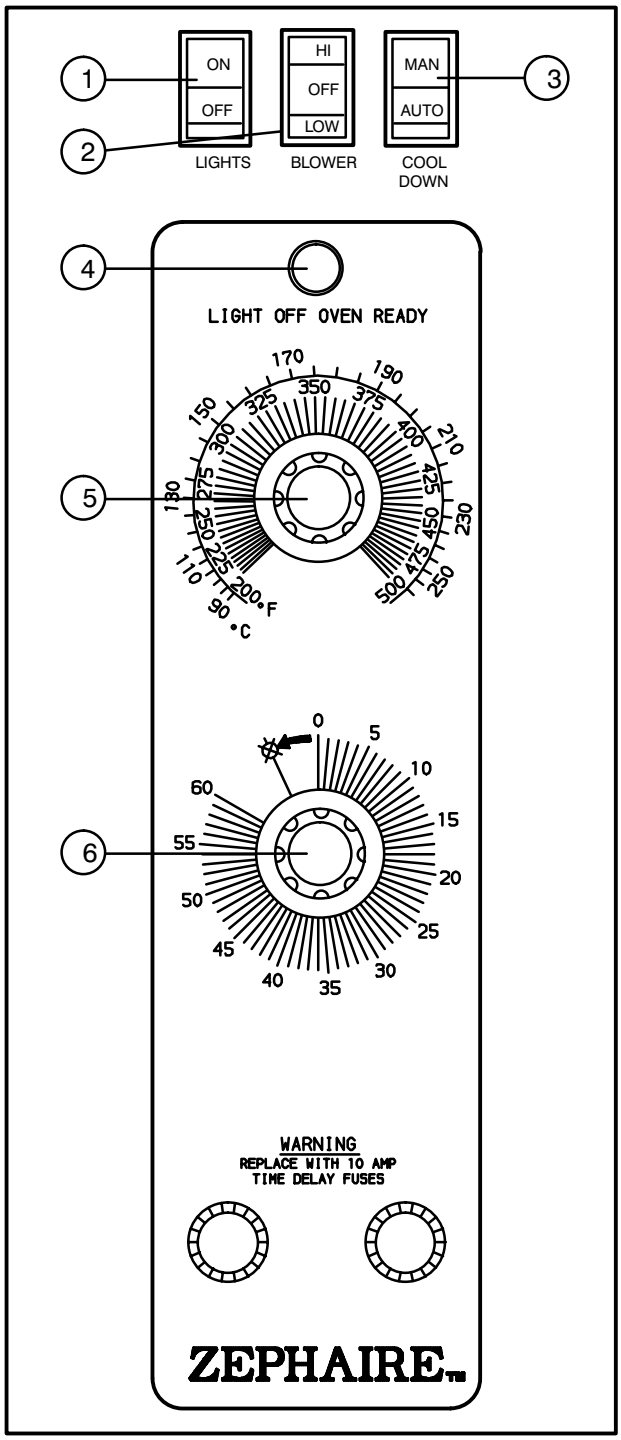


FIGURE 9

CONTROL DESCRIPTION

1. CAVITY LIGHTS ON/OFF — Operates the oven cavity lights.
2. BLOWER HI/LO/OFF SWITCH — Controls the operation of the blower. If the blower switch is in the OFF position the oven will be turned off.
3. COOL DOWN SWITCH — When the switch is in the AUTO position, the oven can be used to cook. When the switch is in the MAN position, the oven is cooling down for the next bake.
4. OVEN READY LIGHT - When lit indicates elements are heating. When the light goes out the oven has reached operating temperature.
5. THERMOSTAT - Controls the temperature at which the oven will operate. Temperatures can range from 200-500°F (93-260°C).
6. COOK TIMER - Used to time the length of the cooking operation. When the set time expires, a buzzer will sound.

OPERATION

1. Set the COOL DOWN switch (3) to the AUTO position. Turn the THERMOSTAT (5) to the desired operating temperature.
2. Set the BLOWER SWITCH (2) to the *HI* position. When the OVEN READY light (4) goes out, load the product and set the COOK TIMER (6).
3. When the timer sounds, remove the product. If the next product requires a lower operating temperature, then the cool down mode can be used. Set the BLOWER SWITCH (2) to the *LO* position. Turn the COOL DOWN SWITCH (3) to the MAN position. Make sure that the door is open.
4. Turn the oven off by setting the BLOWER SWITCH (2) to the *OFF* position.

SOLID STATE DIGITAL CONTROL

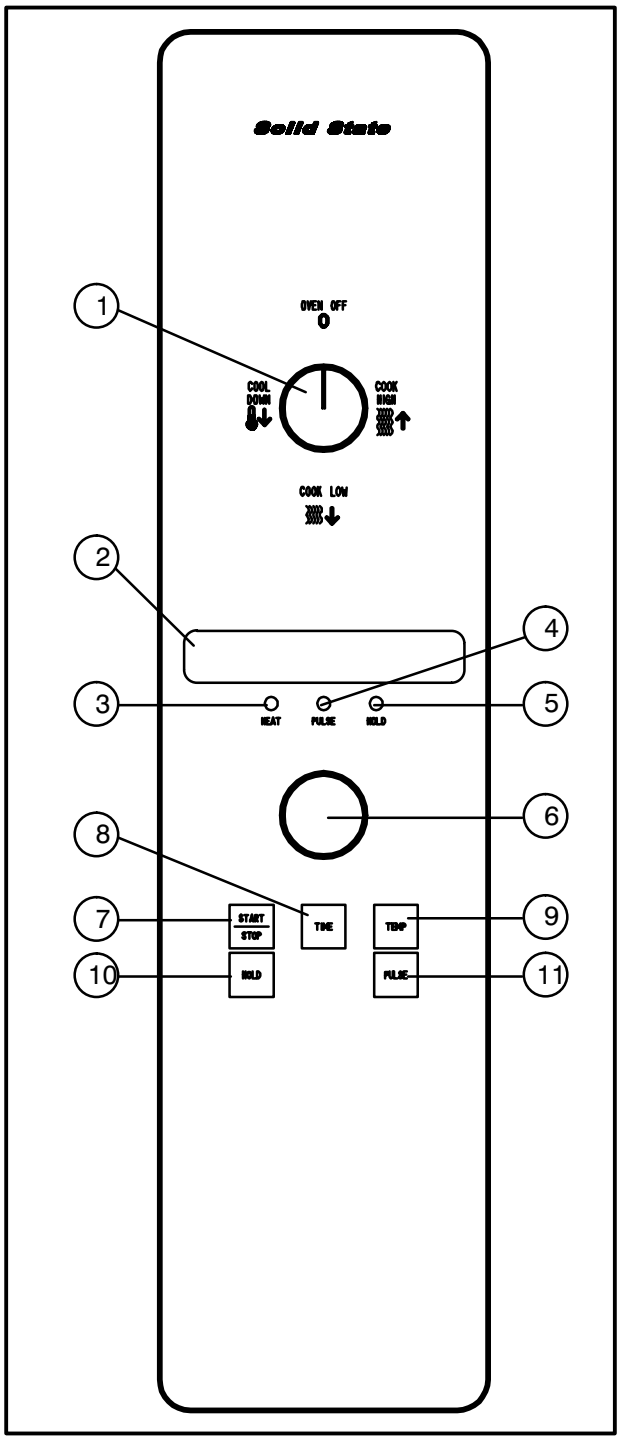


FIGURE 10

CONTROL DESCRIPTION

1. SELECTOR SWITCH – turns power to the oven on or off. Allows selection of Cook or Cool Down Modes and fan speed (if applicable).
2. DISPLAY – displays time or temperature and other information related to oven function.
3. HEAT LAMP – lights when heater is on.
4. PULSE LAMP – lights when Pulsed Fan Mode is turned on.
5. HOLD LAMP – lights when Hold Mode is turned on.
6. DIAL – used to enter set points in display
7. START/STOP KEY – starts or stops the timer.
8. TIME KEY – used to show time in the display.
9. TEMP KEY – used to show set temperature in the display.

   NOTE: Actual temperature is shown while the TEMP key is held down.
10. HOLD KEY – turns Hold Mode on or off.
11. PULSE KEY – turns Pulse Mode on or off.

PROGRAMMING

To set the cook temperature:

1. Press TEMP (9) key.
2. Rotate dial (6) to enter temperature.

To set the cook time:

1. Press TIME (8) key.
2. Rotate the dial (6) to enter time.

   NOTE: Time is entered in hours : minutes or minutes : seconds.

To set the hold time:

1. Press HOLD key (10) to turn hold mode on.

   NOTE: HOLD light is on.
2. Rotate dial (6) to enter the hold temperature.
3. Press START/STOP key (7)

To set the pulse time:

1. Press PULSE KEY (11) to turn pulse mode on.

   NOTE: Pulse light is on.

2. Rotate DIAL (6) to enter the pulse time. Pulse time is a portion of the pre-set cook time.

OPERATION

Cook Only:

1. Turn the SELECTOR switch (1) to the desired position.
2. Enter the cook time and temperature.
3. Load product into the oven.

   NOTE: The display reads LOAD when the oven is near the set temperature.
4. Press the START/STOP key (7). The timer begins to count down.
5. When the cook timer reaches 00:00 the buzzer sounds and the display reads *DONE.*
6. Press the START/STOP key (7) to silence the buzzer.
7. Remove the product.

Cook with Hold:

NOTE: HOLD light is on when hold mode is on and off when hold mode is off.

1. Turn the SELECTOR switch (1) to the desired position.
2. Enter the cook time and temperature.
3. Press the HOLD key (10). Enter the hold temperature.
4. Load product into the oven.

   NOTE: The display reads LOAD when the oven is near the set temperature.
5. Push the START/STOP (7) key. Timer begins to count down.
6. When the cook timer reaches 00:00 the buzzer sounds and the display reads *DONE.* The buzzer turns off after a few seconds. The display reads *HOLD* until the oven reaches the hold temperature. Then the timer begins to count up.
7. Push the START/STOP key (7) to stop timer.
8. Remove the product.
9. Push HOLD (10) key to turn off hold mode.

Cook with Pulse:

NOTE: PULSE light is on when pulse mode is on and off when pulse mode is off.

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Enter cook time and cook temperature.
3. Press PULSE KEY (11). Enter the pulse time.

   NOTE: Pulse time is a portion of the cook time and does not increase the previously entered cook time.

4. Load product into the oven.

   NOTE: The display reads LOAD when the oven is near the set temperature.

5. Push START/STOP KEY (7). The timer begins to count down the cook time. The oven will be in pulse mode for the set pulse time. Once the set time has expired, the unit will automatically switch to cook mode and continue counting down.
6. When the cook timer reaches 00:00 the buzzer sounds and the display reads *DONE.*
7. Push the START/STOP KEY (7) to turn the buzzer off.
8. Remove the product.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

2ND LEVEL PROGRAMMING

To Initiate Programming

1. Set the time to 1 minute. 0:01 01:00
2. Set the temperature to 151°F (66°C).

To Access Second Level Programming

1. Press and hold the TEMPERATURE key and the START/STOP key simultaneously.
2. The control beeps and displays the software version for a few seconds.
3. The control then displays 2ndL. The control has entered the second level program.

To Change the Temperature Offset

1. Press the TEMPERATURE key.
2. The control displays OFFS or offset for a few seconds. It then displays the current offset which should be 0°F or 0F.
3. Rotate the DIAL to enter a ± 50°F (28°C) offset. Use this to calibrate the oven if necessary.

To Set the Display Scales

1. Press the TEMPERATURE key.
2. The control displays the current setting from the menu to the right. This menu controls 3 separate parameters:

   C.) The desired temperature scale (ie Celsius or Fahrenheit)

   D.) Electric or Gas oven

   E.) The desired time display (ie hrs/min or min/sec)

3. To adjust the setting turn the DIAL 1 click at a time.

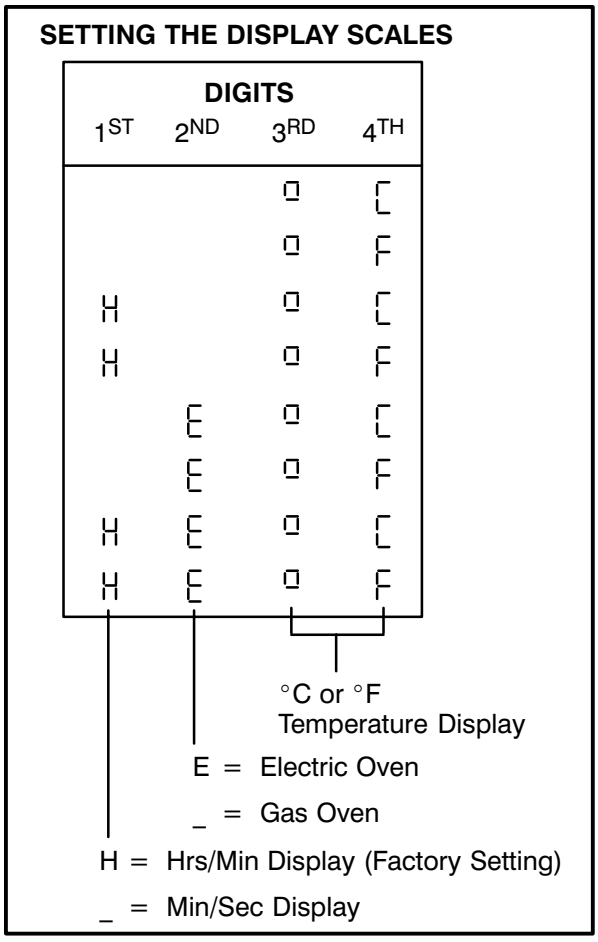


FIGURE 11

To Return to Normal Operating Mode

1. Press the TEMPERATURE key.
2. The control goes through self check then displays the set temperature 151°F (66°C).
3. The oven can now be controlled as normal.

CH-PRO3 (SOLID STATE PROGRAMMABLE DIGITAL CONTROL)

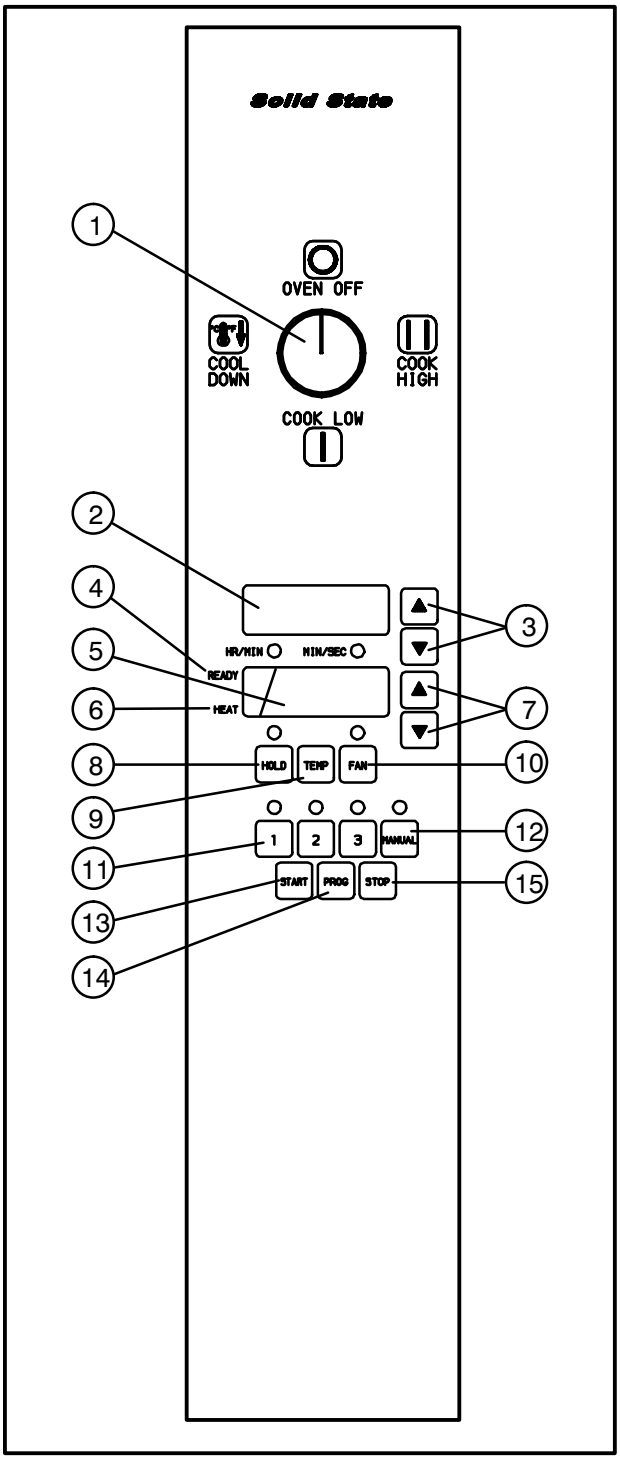


FIGURE 12

COMPONENT DESCRIPTION

1. SELECTOR SWITCH – turns power to the oven on or off. Allows selection of cook or cool down modes and fan speed (if applicable).
2. TIME DISPLAY – gives cook time.
3. TIME ARROW KEYS – press to enter cook and/or pulse times.
4. READY INDICATOR – when lit indicates the oven has reached the setpoint temperature and product may be loaded.
5. TEMPERATURE DISPLAY – gives cook and hold temperatures.
6. HEAT INDICATOR – when lit indicates the oven is heating.
7. TEMPERATURE ARROW KEYS – press to enter cook and hold temperatures.
8. HOLD KEY – turns hold mode on or off.
9. TEMP KEY – press to display actual oven temperature.
10. FAN KEY – turns pulse mode on or off. The LED above the fan key is always on.
11. PRODUCT KEYS – three programmable keys.
12. MANUAL PRODUCT KEY – default product key used for manual operation.
13. START KEY – press to begin a cook cycle.
14. PROGRAM KEY – press to enter programming mode and save programmed settings.
15. STOP KEY – press to silence audible alarms and cancel cook cycles.

MANUAL OPERATION

NOTE: Press the arrow keys to change the cook time and temperature at any point during manual operation.

Cook Only:

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the TIME ARROW KEYS (3) to enter the cook time.
3. Press the TEMPERATURE ARROW KEYS (7) to enter the cook temperature.
4. The READY INDICATOR (4) lights when the oven is at the set temperature. Load product into the oven.
5. Press the START KEY (13). The TIME DISPLAY (2) counts down. The manual key LED flashes.
6. When the cook time expires the LEDs and both displays flash and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm.
7. Remove the product.

Cook with Hold:

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the TIME ARROW KEYS (3) to enter the cook time.
3. Press the TEMPERATURE ARROW KEYS (7) to enter the cook temperature.
4. Press and hold the HOLD KEY (8) then release. Use the TEMPERATURE ARROW KEYS (7) to enter the hold temperature. The hold key LED lights. Press the hold key again to exit the hold program.
5. The READY INDICATOR (4) lights when the oven is at the set temperature. Load product into the oven.
6. Press the START KEY (13). The TIME DISPLAY (2) counts down. The manual key LED flashes.
7. When the cook time expires both displays flash and an audible alarm sounds for several seconds then self cancels. The hold key LED flashes. The time display begins to count up while the oven cools to the hold temperature. When the oven reaches the hold temperature the time display resets to 00:00 then begins to count up the hold time. The fan cycles with heat demand in the hold mode.
8. Press the STOP KEY (15) to stop the timer.
9. Remove the product.
10. Push the HOLD KEY (8) to turn off hold mode.

Cook with Pulse:

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the MANUAL PRODUCT KEY (12). The manual and fan key LEDs light.
3. Press the TEMPERATURE ARROW KEYS (7) to enter the cook temperature.
4. Press the FAN KEY (10). The fan key LED flashes. Use the TIME ARROW KEYS (3) to enter the pulse time.
5. The READY INDICATOR (4) lights when the oven is at the set temperature. Load product into the oven.
6. Press the START KEY (13). The manual key LED flashes. The TIME DISPLAY (2) counts down. The fan cycles on for 30 seconds then off for 30 seconds until the set pulse time has expired.
7. When the pulse time expires both displays flash and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm.
8. Remove the product.

Oven Shut Down:

1. Turn the SELECTOR SWITCH (1) to *OVEN OFF.*

PROGRAMMING THE MANUAL KEY DEFAULT

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the MANUAL KEY (12). The manual and fan key LEDs light.
3. Press the TIME ARROW KEYS (3) to enter the cook time.
4. Press the TEMPERATURE ARROW KEYS (7) to enter the cook temperature.
5. **For Cook and Hold** – Press and hold the HOLD KEY (8). At the same time use the TEMPERATURE ARROW KEYS (7) to enter the hold temperature. The hold key LED lights. Press the hold key again to exit the hold mode.

   For Cook with Pulse – Press the FAN KEY (10). Use the TIME ARROW KEYS (3) to enter the pulse time. If no pulse is required, leave the pulse time at 0:00. The fan key LED flashes. Press the fan key again to exit the fan mode.
6. Press the PROGRAM KEY (14) to save the program settings.

MANUAL KEY DEFAULT OPERATION

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the MANUAL KEY (12). The applicable LEDs light.
3. Press the START KEY (13). The TIME DISPLAY (2) counts down. The manual key LED flashes.

   NOTE: In Cook with Pulse the fan LED flashes.

   NOTE: Press the arrow keys to change the cook time and temperature at any point during manual key operation.
4. When the cook time expires the applicable LEDs and both displays flash and an audible alarm sounds.
5. Press the STOP KEY (15) to silence the alarm.

   NOTE: In Cook & Hold the alarm self cancels. The oven cools to the hold temperature and the time display counts up.
6. Remove the product.
7. Turn the SELECTOR SWITCH (1) to *OFF* to shut down the oven.

PROGRAMMING THE PRODUCT KEYS

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the desired PRODUCT KEY (11). The product and fan key LEDs light.
3. Press and hold the PROGRAM KEY (14) until the corresponding LED flashes, approximately five seconds.
4. Press the TIME ARROW KEYS (3) to enter the cook time.
5. Press the TEMPERATURE ARROW KEYS (7) to enter the cook temperature.
6. **For Cook and Hold** – Press and hold the HOLD KEY (8). Use the TEMPERATURE ARROW KEYS (7) to enter the hold temperature. The hold key LED lights. Press the hold key again to exit the hold mode.

   For Cook with Pulse – Press the FAN KEY (10). Use the TIME ARROW KEYS (3) to enter the pulse time. If no pulse is required, leave the pulse time at 0:00. The fan key LED flashes. Press the fan key again to exit the fan mode.
7. Press the PROGRAM KEY (14) to save the program settings.

PRODUCT KEY OPERATION

1. Turn the SELECTOR SWITCH (1) to the desired position.
2. Press the desired PRODUCT KEY (11). The applicable LEDs light.
3. Press the START KEY (13). The TIME DISPLAY (2) counts down. The product key LED flashes.

   NOTE: In Cook with Pulse the fan LED flashes.
4. When the cook or pulse time expires the applicable LEDs and both displays flash and an audible alarm sounds.
5. Press the STOP KEY (15) to silence the alarm.

   NOTE: In Cook and Hold the alarm self cancels. The oven cools to the hold temperature and the time display counts up.
6. Remove the product.
7. Turn the SELECTOR SWITCH (1) to *OFF* to shut down the oven.

INTELLIPLUS WITH CHAIN EVENT CONTROL

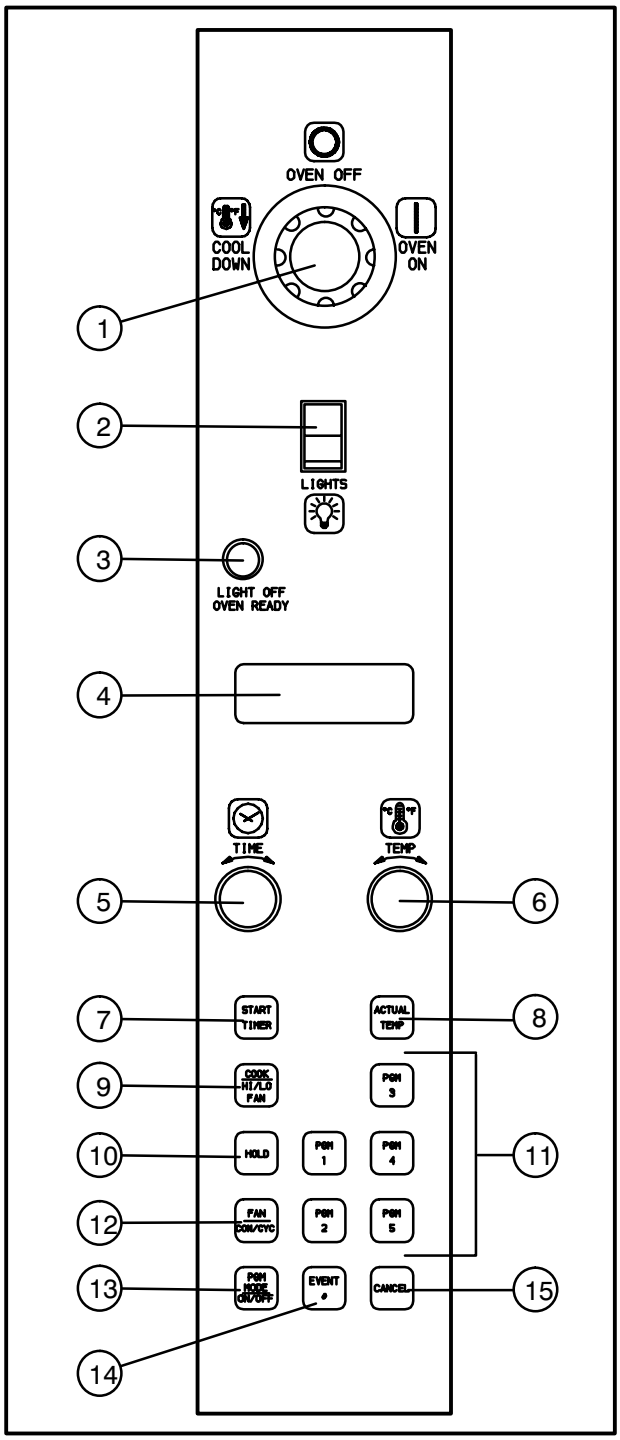


FIGURE 13

CONTROL DESCRIPTION

1. SELECTOR SWITCH – controls power to the oven for cook or cool down.
2. LIGHTS SWITCH – controls interior lights.
3. OVEN READY LIGHT – when lit indicates burner operation. When the light goes out the oven has reached operating temperature.
4. DIGITAL DISPLAY – displays the time, temperature, and controller related information.
5. TIME DIAL – used to set the cook and/or hold time of the selected program.
6. TEMPERATURE DIAL – used to set the cook and/or hold temperature of the selected program.
7. START TIMER – starts the program that is shown in the display.
8. ACTUAL TEMP – press to display the actual temperature of the oven.
9. COOK HI/LO FAN – press to select fan speed, (hi or lo).
10. HOLD – press to set the oven in the hold mode.
11. PGM1 thru PGM5 – press to program time and temperature settings for up to five products.
12. FAN CON/CYC – press to select the fan mode (continuous or cycle).
13. PGM MODE ON/OFF – press to enter and exit the programming mode.
14. EVENT # – to program event parameters with chain event control.
15. CANCEL – press to cancel entries in the programming mode, and clear the display.

COOK OPERATION

1. Rotate the TEMPERATURE dial (6) to the desired cooking temperature from 150-500°F (66-260°C). Turn the dial clockwise to increase the temperature, counter-clockwise to decrease.
2. Press the COOK HI/LO FAN key (9) until the display (4) reads *HIFAN*. Press the key again to select the low speed fan. The display reads *LOFAN.*
3. Press the FAN CON/CYC key (12) until the display reads *FAN CON*. Press the key again for cycling fan operation. The display reads *FAN CYC*. The fan cycles on and off in 30 second intervals at the speed selected with the COOK HI/LO FAN (9) key.
4. Rotate the TIME (5) dial to the desired cook time from 5 seconds to 12 hours. Turn the dial clockwise to increase the cook time, counter-clockwise to decrease. When the time digits and the colon blink in the display, the cook cycle has been set but not started.
5. When the display reads the set temperature press the START TIMER key (7) to start the cook cycle. The time can be changed at any point during a timing cycle by rotating the TIME dial (5) clockwise or counter-clockwise. To cancel the countdown press the CANCEL key (15).

   NOTE: To display the temperature within the oven, press and hold the ACTUAL TEMP key (8).
6. When the timer has counted down to 0, press the CANCEL key (15) to silence the alarm.

MANUAL COOK AND HOLD OPERATION

1. Rotate the TEMPERATURE dial (6) to the desired cook temperature from 150-500°F (66-260°C). Turn the dial clockwise to increase the temperature, counter-clockwise to decrease.
2. Press the COOK HI/LO FAN key (9). The display reads *HIFAN*. Press the key again to select the low fan speed. The display reads *LOFAN*.
3. Rotate the TIME dial (5) to the desired cook time. Turn the dial clockwise to increase the time, counter-clockwise to decrease.
4. Press the HOLD key (10). The display reads *HOLD.* Rotate the TEMPERATURE dial (6) to set the desired hold temperature.
5. Press the FAN CON/CYC key (12) to set the fan mode. If cycling fan is selected the CYC key remains lit.

   NOTE: When FAN/CYC is selected in the hold mode the fan cycles on and off with the heating elements.
6. When the oven reaches the set temperature, press the START TIMER key (7) to start the cook cycle. The display flashes the fan speed then counts down the cook time. The hold key blinks until the cook time expires.
7. As the oven enters the hold mode the hold key remains lit. The timer begins counting up to indicate elapsed time. If cycling fan is selected the fan cycles on and off at low speed.

   NOTE: If the desired hold temperature is lower than the actual oven temperature, the fan shuts off. The temperature digits blink until the oven temperature drops to the desired hold temperature.
8. To display the temperature within the oven, press and hold the ACTUAL TEMP key (8).

NOTE: Press the CANCEL key (15) at any time to cancel the current cycle.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

CHAIN EVENT PROGRAMMING

NOTE: Program keys 1 and 2 can have up to six events. Program keys 3-5 can have up to 4 events.

1. Press the PGM MODE ON/OFF key (13) to enter the programming mode. *PGM* will blink. The normal operation of the oven is halted.
2. Press the desired PGM # key (11) to select an event chain to be programmed. The appropriate *PGM #* will blink and remain lit. Event *#1* time and temperature are shown in the display. *E1* is displayed alternately with the temperature.
3. Rotate the TEMPERATURE dial (6) to set the temperature.
4. Select *LOFAN* or *HIFAN* by pressing the COOK HI/LO FAN key (9).
5. Select FAN CON or FAN CYC by pressing the FAN CON/CYC key (12). *CYC* remains lit if cycling fan is selected.
6. Rotate the TIME dial (5) to set the cook time.

   NOTE: If the time is set to zero (0), the event is ignored.
7. Press the EVENT # key (14). Event #2 time and temperature are shown in the display. *E2* is displayed alternately with the temperature.
8. Set the desired temperature, fan speed, fan mode and time.
9. Press the EVENT # key (14) to proceed to the next event. Enter the event parameters as desired. If HOLD mode is desired, it must be the last event in any chain. Any events stored after a HOLD mode will be ignored.
10. To program another chain of events, press a different PGM # key (11) then press the EVENT # key (14).
11. Store as many as five (5) programs using all the PGM # keys.
12. Press PGM MODE ON/OFF (13) to exit the programming mode. *PGM #* disappears from the display and normal oven operation resumes.

To add new programs or to change the parameters of an existing program, repeat steps 1-12 as necessary.

SELECTING A PROGRAM

1. To select a program sequence, press the desired PGM # key (11). *PGM #* will be illuminated. At this time the oven begins to heat up to the cook temperature stored in the event #1 chain. *EI* is illuminated and the E1 options are displayed. The amount of time displayed is the sum total time of all the programmed events.
2. Press the START TIMER key (7) to start a programmed sequence of events.
3. Press the EVENT # key (14) to display the time remaining in the current event chain. The time will remain displayed for approximately 5 seconds.
4. Press the ACTUAL TEMP key (8) to display the actual temperature within the oven.
5. Press the CANCEL key (15) to stop an active program sequence.

⚠ WARNING!!

A complete five minute shutdown must be observed before the oven is relighted.

2ND LEVEL PROGRAMMING

NOTE: Time must be zeroed out in order to perform the following functions.

Setting a temperature offset

1. Set the temperature dial to 210°.
2. Push and hold the CANCEL and START TIMER keys until the display reads 000.UPO
3. Enter the desired offset.
4. Push the ACTUAL TEMP key.

Fahrenheit to Centigrade Conversion

1. Set the temperature dial 220°.
2. Push and hold the START TIMER until the display reads CCC°.
3. Enter the desired temperature.
4. Push the ACTUAL TEMP key.

Changing Minutes to Seconds or Hours to Minutes

1. Set the temperature dial to 230°.
2. Push and hold the START TIMER until the display changes from MIN to HR.
3. Push the ACTUAL TEMP key.

INTELLITOUCH

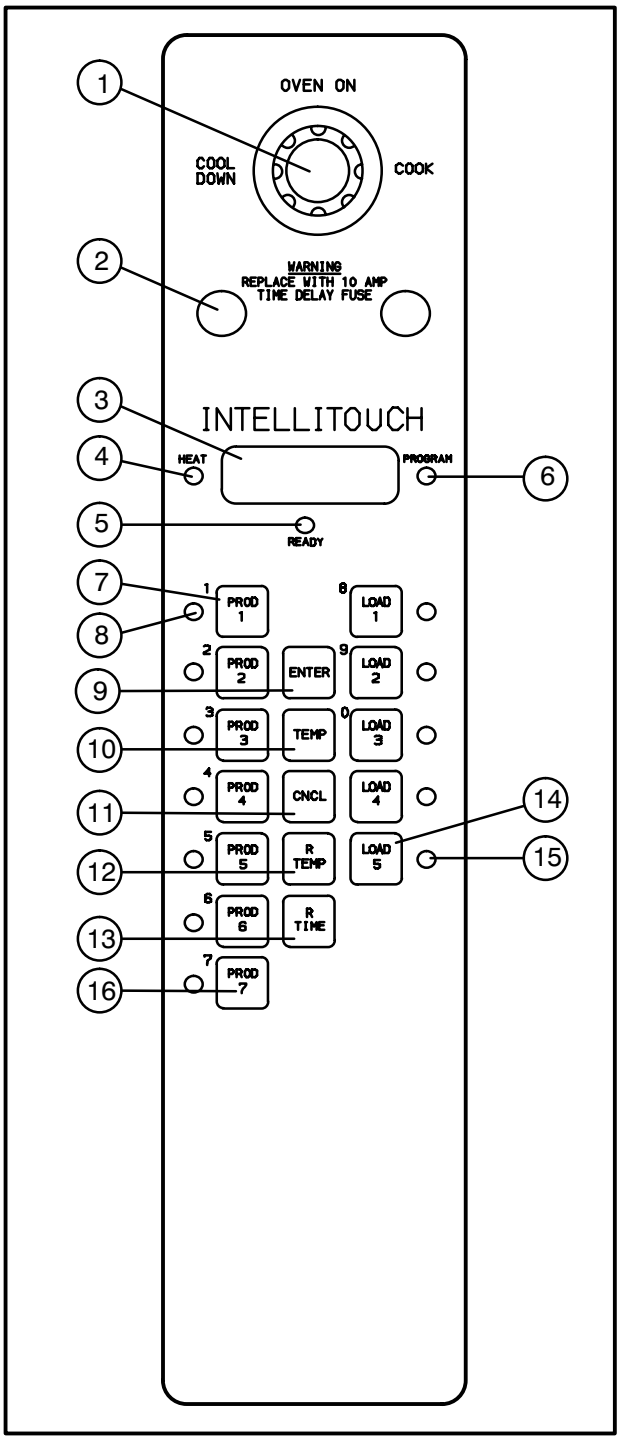


FIGURE 14

COMPONENT DESCRIPTION

1. SELECTOR SWITCH - controls power to the oven and selects cool down mode.
2. FUSES - provide oven circuit protection
3. DISPLAY - displays the time, temperature and controller related information.
4. HEAT ON LIGHT - indicates heat is on in the oven.
5. READY LIGHT - indicates the oven is ready to load.
6. PROGRAM MODE LIGHT - indicates oven is in program mode.
7. PROD - 7 programmable product keys.
8. PRODUCT KEY LIGHTS - indicate which product key is in use.
9. ENTER - key used to begin programming procedure.
10. TEMP - actual oven temperature key.
11. CANCEL - press to cancel programming.
12. R TEMP - press to recall program temperature.
13. R TIME - press recall program time.
14. LOAD keys - 5 independent load timer keys.
15. LOAD TIMER LIGHTS - indicate which load key is in use.
16. NUMERALS - apply the numbers 1 thru 0 to the adjacent keys when in program mode.

PROGRAMMING SEQUENCE

1. Press the ENTER key (9). The display reads *CODE* and the program lamp lights.
2. Enter the code sequence *1-7-8-0* to activate the programming mode. PIC1 will be displayed.
3. Press the PROD key (7) to be programmed.
4. Key in the desired temperature if different than that shown in the display. Press the ENTER (9) key.
5. Key in the time desired if it is different than that shown in the display. Press the ENTER (9) key. *PIC1* will be displayed.

   NOTE: A steady : indicates time in minutes:seconds. A flashing : indicates time in hours:minutes. To change the timing mode, press the R TIME key (13).

6. Repeat steps 3–7 for up to seven programs.
7. Press the CNCL (11) key to exit the programming mode and activate the automatic mode.

DISPLAY INDICATORS

-LO- the oven temperature is more than 15°F below the set temperature. LO will be displayed while the oven is preheating.

-HI- the oven set temperature is more than 15°F above the set temperature.. *-HI-* will continue to be displayed until the temperature returns to to the set limits or exceeds the maximum setting of 550°F.

EROR there is a temperature setting difference between two selected *PROD* keys (7).

HELP the temperature setting exceeds the maximum setting of 550°F. This will be shown as an alternating *HELP* and *PROB* display.

PROB is displayed for the following conditions:
1. Defective temperature probe.
2. Stripped insulation on probe wires.
3. Poor connection of probe terminals.
4. Probe sensing temperatures above or below the probe sensing range.

8888 an Intellitouch computer failure.

OPERATION

NOTE: Multiple product keys may be in operation at the same time as long as the temperatures within these programs are the same.

1. Turn SELECTOR SWITCH (1) to *COOK*.
2. The oven heats to the programmed setting of PROD1 (7).
3. Press the desired PROD key (7).
4. When the READY (5) lamp lights, load the product. Press a LOAD key (14) to initiate the timer.

   NOTE: If the load key is pressed before the oven temperature is within the ready range undesirable results may occur.

5. The lights associated with the selected product and load keys illuminate.
6. When the program is complete the selected product and load key lights flash and an audible alarm sounds. Press the selected LOAD key (14) to silence the alarm.

To cancel a load timer, press and hold the CNCL key (11) and the selected LOAD key (12).

Press the R TEMP key (12) at any time to view the programmed temperature setting.

Press the R TIME key (13) at any time to view the programmed time setting.

Press the TEMP key (10) at any time to view the actual oven temperature.

2ND LEVEL PROGRAMMING

To access 2nd level programming

1. Turn the oven off.
2. Locate the 3 pin header on the bottom right side of the control. Move the jumper from the middle and bottom pins to the middle and top pins exposing the bottom pin.
3. Turn the oven on. The program LED (1) lights.

Programming the 2nd level parameters

1. The #1 LED illuminates.

   NOTE: The LED's (3) are located next to the product and load keys. The LED identification numbers (2) are located to the left of the product and load keys. See FIGURE 15.

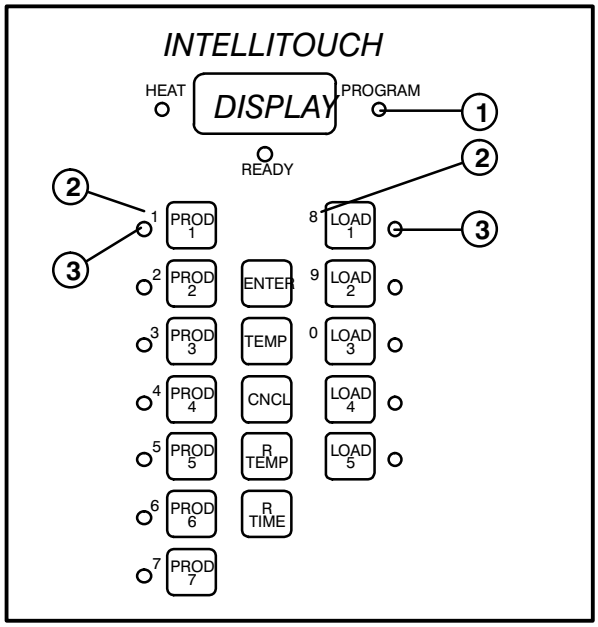


FIGURE 15

2. Use the product and load keys to enter numerical data. See TABLE 1 for correct parameter settings.

   NOTE: Use product keys 1-7 for numerals 1-7. Use load keys 1-3 for numerals 8,9 and 0 respectively.

3. Press the enter key to save the parameter setting.
4. The #2 LED illuminates
5. Repeat steps 1-3 for each parameter. When the final parameter setting is entered and saved the #1 LED illuminates.

LED(s)	Parameter	Setting
1	Offset	0
2	Hrs/Min timer	0F
1,2	Fahrenheit (0=°F, <1=°C)	0F
3	Proportional	0F
1,3	Integration	1F
2,3	Dead band	3F
1,2,3	Cycle time	12F
4	Minimum on time	3F
1,4	Hi temp alarm	550F
2,4	Ready temp differential	15F
1,2,4	Minimum setpoint	150F
3,4	Maximum setpoint cook	500F
1,3,4	Minimum setpoint hold	0F
2,3,4	Maximum setpoint hold	0F
1,2,3,4	Fan 2 speed	0F
5	Fan rev.	0F

TABLE 1

To exit the 2nd level programming

1. Turn the oven off.
2. Move the jumper from the middle and top pins to the middle and bottom pins exposing the top pin.
3. Turn the oven on.

Error codes

HELP the temperature setting exceeds the maximum setting of 550°F. This will be shown as an alternating *HELP* and *PROB* display.

PROB 1. Defective temperature probe.
2. Stripped insulation on probe wires.
3. Poor connection of probe terminals.
4. Probe sensing temperatures above or below the probe sensing range.

8888 an Intellitouch computer failure.

INTELLITOUCH II CONTROL

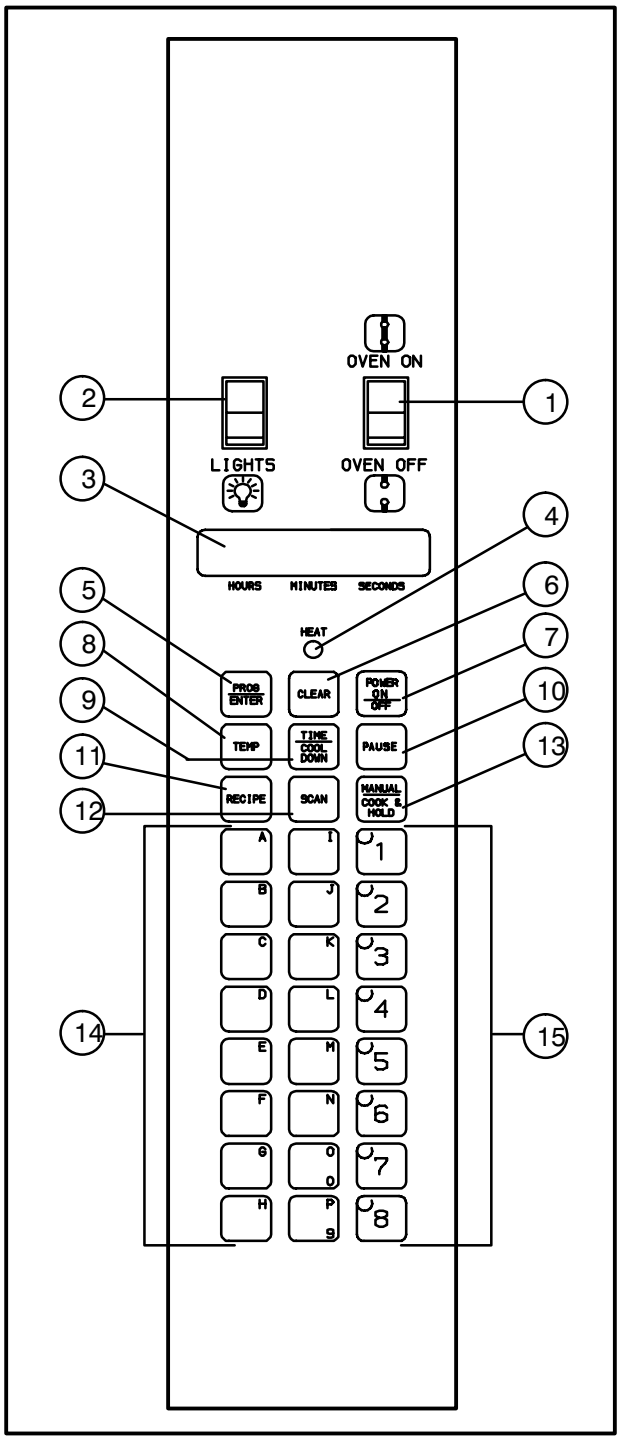


FIGURE 16

CONTROL DESCRIPTION

1. POWER ON SWITCH – controls power to the oven.
2. LIGHTS SWITCH – controls interior lights.
3. DISPLAY – displays controller related information.
4. HEAT LIGHT – illuminates when the oven is heating. When the light goes out, the oven has reached operating temperature.
5. PROG/ENTER – used to select the programming mode, cycles through the programming options and stores programmed values into memory. Starts timer in manual mode.
6. CLEAR – clears the selected mode and resets the controller to the select mode.
7. POWER ON/OFF – controls power to the Intellitouch computer controller.
8. TEMP – displays the set point and the oven's actual temperature.
9. TIME/COOL DOWN – sets the cook time when the controller is in manual mode. Starts the cool down fan when in select mode.
10. PAUSE – pauses a cook cycle.
11. RECIPE – displays the recipe program for a selected product key.
12. SCAN – displays the active product recipes.
13. MANUAL/ COOK & HOLD – sets the manual cook mode.
14. PRODUCT KEYS – assigns a key to a programmed recipe and begins a programmed cooking process.
15. SHELF/PROGRAM KEYS – used to enter numeric data during programming and shelf during single stage cooking.

PROGRAMMING PROCEDURE

NOTE: Use the shelf keys (15) to enter a numeric value. Use product keys (14) P for the numeral 9 and O for the numeral 0.

1. Set the POWER ON/OFF switch (1) to *ON*. The display reads *OFF*.
2. Press the POWER ON/OFF key (7) to power the controller. The display reads *SELECT*.
3. Press the PROG/ENTER key (5).
4. When the controller displays *CODE—?* enter the manager's code and press the PROG/ENTER key (5). The display reads *—PROM—?*.

   NOTE: The manager's code prevents unauthorized entry to the program mode. The code must be entered to access the program mode. The factory default manager's code is BAKE. Keep a copy of the default code in a safe place for future reference.

5. When the display reads *PROG-?* press one of the product keys A thru P (14). The selected lamp lights.
6. When the display reads *PRHEAT TEMP-?* enter a numeric temperature. Press the PROG/ENTER key (5) to advance the controller.
7. When the controller displays *CURVE-? COMP* enter a two digit compensation curve. Press the PROG/ENTER key (5) to advance the controller. (Values 0 to15).
8. When the controller displays *TEMP-? STAGE 1* enter a cook temperature for the selected product. Press the PROG/ENTER key (5) to advance the controller.
9. When the controller displays *TIME-? STAGE* enter a cook time for the selected product. Press the PROG/ENTER key (5) to advance the controller.
10. Use any key to cycle the fan speed through *HIGH, LOW*, or *OFF* for the selected product. If high or low is selected the display reads *MODE-?*. Use any key to cycle the fan mode through *CONT* (continuous), *CYCLE*, or *PULSE*.
11. Repeat steps 8—10 for additional stages.

    NOTE: If additional stages are not required, enter temperature of 0° to end programming.

12. When the controller displays *SAVE PROD-?* press the PROG/ENTER key (5) to save the product settings and return to the SELECT state.

NOTE: The oven will not preheat unless a program is activated or a temperature has been set in manual mode.

COMPENSATION CURVE

Compensation curves are mathematical algorithms that adjust the rate of the countdown timer to compensate for variations in oven temperature above or below that of the setpoint temperature. Compensation curves offset time for variable conditions that effect the oven temperature allowing for consistent results.

If the oven temperature is below the setpoint the control slows the speed of the countdown, so that the time to elapse 1 second on the computer is longer than an actual second. If the oven temperature is above the setpoint temperature the control increases the speed of the countdown, so that the time to elapse 1 second on the computer is shorter than an actual second.

Choosing a compensation curve

1. Develop a recipe for a specific product using the minimum load size and a compensation curve of 0. (i.e., no compensation, 1 second countdown = 1 second actual)
2. Use the maximum load size for your product. Enter a compensation curve of 7. Compare the results with those of a minimum load size.
3. If the maximum load size is lighter than the minimum load size, use a higher compensation curve value and retry. If the maximum load size is darker than the minimum load size, use a lower compensation curve value and retry. Repeat until the results of the maximum load match the minimum load.

MANUAL COOKING PROCEDURE

NOTE: Use the shelf keys (15) to enter a numeric value. Use product keys (14) P for the numeral 9 and O for the numeral 0.

1. Set the POWER ON switch (1) to the ON position.
2. When the control displays *SELECT* press the MANUAL/COOK & HOLD key (13) to enter manual mode. The control displays *MANUAL*.
3. Press the PROG/ENTER key (5) and then the TEMP key (8). When the control displays *°F* enter a cook temperature.
4. If the oven's actual temperature is less than the defined temperature, the control displays *WAIT LOW*. The control displays *WAIT HIGH* while the oven cools down if the oven's actual temperature is higher than the programmed temperature.
5. Press PROG/ENTER key (5) and then the TIME/COOL DOWN key (9). When the control displays _____ enter a cook time. Press the PROG/ENTER key (5). The control will begin to count down and start the cooking process.
6. Press the TEMP key (8) once to display the set point and press it again to display the actual temperature.
7. Press the CLEAR key (6) twice to return to select mode from the manual mode.
8. With the controller displaying *SELECT* press the TIME/COOL DOWN (9) key.

PROGRAMMED COOKING PROCEDURE

1. Press the POWER ON/OFF key (7) to set the controller to the select state.
2. With the controller displaying *SELECT*, press the desired PRODUCT KEY A through P (14).
3. The control displays *WAIT LOW* while the oven heats up if the oven's actual temperature is lower than the programmed temperature. The control displays *WAIT HIGH* while the oven cools down if the oven's actual temperature is higher than the programmed temperature. Press the desired product key to start the timer.

   NOTE: If the product is a single stage/single shelf item, the shelf timer may be used by pressing the appropriate shelf number. If the product is batch loaded, the timer will start automatically.
4. The control displays *DONE* and a buzzer sounds. Press CLEAR (6) to silence the buzzer.
5. With the control displaying *SELECT* press the RECIPE key. When the control displays *PROD-?* press the desired PRODUCT KEY A through P (14). The display cycles through the programmed settings for the selected product. To advance the display manually press the SCAN key (12).

2ND LEVEL PROGRAMMING

Computers with ON/OFF key in control

1. Place the control in *OFF* mode.
2. Press the CLEAR key.
3. Press the B, A, K, and E keys followed by the PROG/ENTER key.
4. The display reads *ACCESS*.
5. Input the relevant code from TABLE 2.
6. Press the PROG/ENTER key.
7. Press CLEAR CLEAR CLEAR to exit.

Computers without ON/OFF key

1. Place the control in *SELECT* mode.
2. Press the 1, 2, 3, 4, 5, 6 keys follows by the PROG/ENTER key.
3. The display reads *ACCESS*.
4. Input the relevant code from TABLE 2.
5. Press the PROG/ENTER key.
6. Press CLEAR CLEAR CLEAR to exit.

ALL CONTROLS

Temperature display scale

1. The display flashes °F/°C then MODE–?
2. Press any key to toggle the scale from °F to °C.
3. Press the PROG/ENTER key to lock in new scale.
4. The display flashes T◗°F (or T◗°C).

Ready Band

1. The display flashes *READY, BAND* and *POS*.
2. Use the numeric keys to enter a value between 1 and 25. Press the PROG/ENTER key.
3. The display flashes *READY, BAND* and *NEG*.
4. Use the numeric keys to enter a value between 1 and 25. Press the PROG/ENTER key.

To exit oven calibration

1. The display flashes *ACCESS, DONE* and *EXIT*.
2. Press CLEAR, CLEAR, CLEAR.
3. The display flashes *REBOOT* and *SELECT*.

Access Codes	
123	Display model, version, date and checksum of firmware
000	STD unit test
CLEAR, TEMP, TEMP, TEMP, PROG/ENTER	Temperature offset (+/–) Ready band offset (+/–)

TABLE 2

BLODGETT IQ™ CONTROL

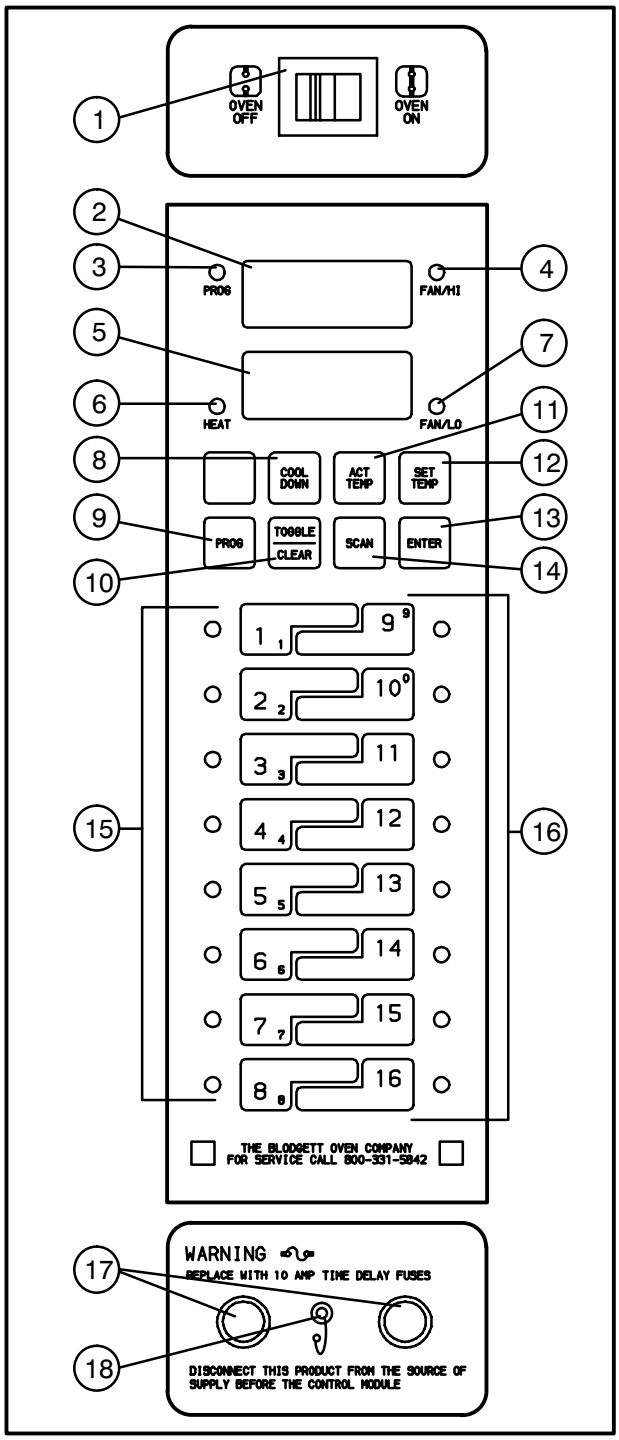


FIGURE 17

COMPONENT DESCRIPTION

1. OVEN POWER SWITCH – controls power to the oven.
2. TOP DISPLAY – displays temperature and other controller related information.
3. PROG LED – when lit indicates the controller is in the programming mode.
4. FAN HI LED – when lit indicates the fans are running at high speed.
5. BOTTOM DISPLAY – displays cook time and other controller related information.
6. HEAT LED – when lit indicates the control is calling for heat.
7. FAN LO LED – when lit indicates the fans are running at low speed.
8. COOL DOWN KEY – press to enter the cool down mode.
9. PROG KEY – press to enter the programming mode.
10. TOGGLE/CLEAR KEY – press during programming to toggle options.
11. ACT TEMP KEY – press to display the actual oven temperature.
12. SET TEMP KEY – press to display the programmed cook temperature for the current stage of the product key.
13. ENTER KEY – press to enter new values into product key programming. Also used to view recovery time.
14. SCAN KEY – completes the programming for the current parameter and advances the controller to the next parameter. Press to view time remaining on multiple cook cycles.
15. PRODUCT LEDS – when lit indicate which product keys are currently in use or programmed for the current oven temperature and fan speed.
16. PRODUCT KEYS – assigns a key to a programmed recipe and begins a programmed cooking process.
17. FUSES – Provide oven circuit protection.
18. COMPORT – used to download programming information.

OVEN OPERATION

Oven Startup:

1. Toggle the POWER SWITCH (1) to *ON*. The oven preheats to the lowest programmed first stage temperature. The LEDS (15) for all products with the same first stage temperature light.

   While the unit preheats the TOP DISPLAY (2) gives the actual temperature. The BOTTOM DISPLAY (5) reads *Lo* if the oven is more than 10° below setpoint. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.

Single Product Cooking Procedure:

NOTE: If the led next to the desired product key is lit skip step 1.

1. Press the desired PRODUCT KEY (16). The oven preheats to the first stage temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.
2. Load the product into the oven. Press the selected PRODUCT KEY (16) to start the cook cycle. The LED (15) next to the selected product key flashes. The top display reads ————. The bottom display counts down the cook time in minutes:seconds.

   NOTE: If the selected product has a cook time of greater than 59:59 the top display reads Hr—— for the total number of hours. The bottom display counts down the cook time in minutes:seconds.

   NOTE: If the selected product is a single stage recipe the LEDS for all single stage products with the same cook temperature and fan speed will light. If the selected product is a multiple stage recipe no other product LEDS will light.

   NOTE: Press and hold the selected product key for three seconds to cancel the cook cycle.
3. When the cook time expires an alarm sounds and the top display reads *donE*.
4. Press the selected product key to silence the alarm. Remove the product.

Multiple Batch Cooking Procedure:

This procedure is for single stage recipes with the same cook temperature and fan speed only.

NOTE: If the led next to the first desired product key is lit skip step 1.

1. Press the first desired PRODUCT KEY (16). The LEDS for all recipes with the same cook temperature and fan speed will light.

   The oven preheats to the cook temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.
2. Load the first product into the oven. Press the selected PRODUCT KEY (16) to start the cook cycle. The LED (15) next to the selected product key flashes. The top display reads ————. The bottom display counts down the cook time in minutes:seconds.
3. Load the second product. Press the appropriate PRODUCT KEY (16).

   NOTE: Only products with lighted LEDS may be selected.
4. The led for the product with the least time remaining flashes faster than the led for the other product. The TOP DISPLAY (2) reads ————. The BOTTOM DISPLAY (5) counts down the cook time for the product with the least time remaining.

   NOTE: To view the remaining cook time for the other product press and hold the SCAN KEY (14). The bottom display cycles through the remaining cook times for each product. Only the led for the product with the cook time displayed will be lit.
5. When a cook time expires an alarm sounds. The top display reads *donE*. The led for the finished product lights. All other LEDS are dark.
6. Press the PRODUCT KEY (16) for the finished product to silence the alarm. Remove the product. Close the oven door. The TOP DISPLAY (2) reads ————. The BOTTOM DISPLAY (5) counts down the cook time for the other product.
7. When the cook time expires an alarm sounds and the top display reads *donE*.

8. Press the PRODUCT KEY (16) to silence the alarm. Remove the product.

Using PreAlarms:

1. The top display reads *AX__*.

   NOTE: A indicates the alarm function. X is the prealarm number. __ is the alarm time.

   The LED for the active product key flashes. All other LEDS are off. The function keys are disabled.

2. If a manual PreAlarm is activated, press the product key to silence the alarm.

   If an automatic PreAlarm is activated the alarm sounds for approximately 5 seconds then stops automatically. Press the product key to silence automatic PreAlarms.

Using Head Count:

Use the following instructions to display the current head count for an individual product key.

1. Press the SCAN KEY (14) and the desired product key simultaneously. The top display reads *HDXX*.

   NOTE: HD indicates the head count function. XX indicates product 1 to 16.

   The bottom display gives the total number of heads cooked from 1 to 9999. The product key LED remains lit.

2. Press the TOGGLE/CLEAR KEY (10) to reset the counter if desired.

3. Press the SCAN KEY (14) to exit.

Use the following instructions to display the total head count.

1. Press the SCAN KEY (14) and the ENTER KEY (13) simultaneously. The top display reads *HEAd*. The bottom display gives the total number of heads cooked from 1 to 9999. All product LEDS remain lit

2. Press the TOGGLE/CLEAR KEY (10) to reset the counter if desired.

   NOTE: Clearing the total head count also clears individual product head counts.

3. Press the SCAN KEY (14) to exit.

Oven Cool Down:

1. Close the oven door. Press the COOL DOWN KEY (8).

NOTE: Cool down cannot be activated with the oven door open. Once the cool down cycle has begun the doors may be opened to speed the cooling process.

PROGRAMMING SINGLE STAGE RECIPES

Entering the Programming Mode:

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (13). The top display reads *Prod*.
3. Press the desired product key followed by the ENTER KEY (13).

Programming the Cook Time:

NOTE: If the product has a cook time of greater than 59:59 the top display reads Px−− for the product, stage and hours. The bottom display counts down the cook time in minutes:seconds.

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter the new cook time. Press the ENTER KEY (13) to save the new cook time.
2. The top display reads P2:__. The control is asking for the cook time for stage 2 of this recipe. Press the TOGGLE/CLEAR KEY (10) to enter a time of 0:00:00 for P2:.

   NOTE: This tells the controller that there are no more stages for this recipe. Once a single stage recipe has been established the control will only allow entries for one stage on all further parameters for this product.

3. Press the ENTER KEY (13) again. The top display reads P1:. The bottom display shows the cook time.
4. Press the SCAN KEY (14) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct−1*. The bottom display gives the current cook temperature. Use the product keys to enter the desired cook temperature.
2. Press the SCAN KEY (14) to advance the programming mode to fan speed

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *HI* and *Lo*.
2. Press the SCAN KEY (14) to advance the programming mode to the fan cycle time.

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. If heat or full are selected press the SCAN KEY (14) to save the new fan cycle and advance to timing mode.

   If pulse is selected press the SCAN KEY (14) and continue with Steps 3−4 to program the pulse cycle.
3. The top display reads *on−1*. The bottom display gives the current pulse on time. Use the product keys to enter the desired pulse on time from 10 to 60 seconds . Press the SCAN KEY (14).
4. The top display reads *of−1*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (14) to advance the programming mode to timing mode.

Programming the Timing Mode:

There are 3 options for timing mode: Straight, Flex and Sensitivity.

1. The top display reads *tC−1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (10) to toggle between *St*, *FL* and *SE*ns.
2. If straight or flex are selected press the SCAN KEY (14) to advance the programming mode to PreAlarms.
3. If sensitivity is selected press the SCAN KEY (14) and continue with Steps 4−5.

   NOTE: Sensitivity adjusts the cook time to compensate for any difference between the setpoint and actual temperature. The lower the sensitivity value the shorter the time adjustment.
4. The top display reads *SE−1*. Use the product keys to enter the desired sensitivity from 0-9.
5. Press the SCAN KEY (14) to advance the programming mode to PreAlarms.

Programming the PreAlarms:

A PreAlarm is an alarm that sounds during the cook cycle. PreAlarms can be used to alert the operator that the product needs to be turned or stirred, etc. Up to three PreAlarms can be programmed for each product.

1. The top display reads *A1*__. (The __ indicate the product key) The bottom display gives the alarm time. Use the product keys to enter the desired time for the first alarm. Press the ENTER KEY (13) to enter the PreAlarm time.

   NOTE: PreAlarm times are measured from the end of the total cook time. For example if the total cook time is 30:00 and a PreAlarm of 5:00 is entered, the alarm will sound 25 minutes into the cook cycle. If a PreAlarm of 0:00 is entered, no additional PreAlarms may be programmed for the selected product key.
2. Press the SCAN KEY (14).
3. The top display reads *AUTo*. The bottom display reads either *YES* or *no*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the PreAlarm type.

NOTE: An auto PreAlarm sounds for approximately 5 seconds, then shuts off automatically. For manual PreAlarms the operator must press the product key to silence the alarm.

4. The top display reads *A2__*. Repeat steps 1—3 for the second and third PreAlarm. When all PreAlarms have been entered the control advances to programming the head count.

Programming the Head Count:

1. The top display reads *HEAd*. The bottom display gives the current number of heads programmed for this product key. Use the product keys to enter the desired number of heads from 1-99.
2. Press the SCAN KEY (14). The programming for this recipe is now complete.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (9). The control returns to operating mode.

PROGRAMMING MULTIPLE STAGE RECIPES

Entering the Programming Mode:

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (13). The top display reads *Prod*.
3. Press the desired product key followed by the ENTER KEY (13).

Programming the Cook Time:

NOTE: If any stage of the product has a cook time of greater than 59:59 the top display reads Px—— for the product, stage and hours. The bottom display counts down the cook time in minutes:seconds.

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter the new cook time. Press the ENTER KEY (13) to save the new cook time.
2. The top display reads P2:__. The control is asking for the cook time for the second stage of this recipe. Repeat Step 1 for each additional stage.
3. When the cook times for all stages are programmed, press the TOGGLE/CLEAR KEY (10) to clear the bottom display.

   NOTE: This tells the controller that there are no more stages for this recipe. Once the number of stages has been established the control will only allow entries for these stages on all further parameters for this product.

4. Press the ENTER KEY (13) again. The display reads P1:. The bottom display shows the cook time.
5. Press the SCAN KEY (14) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct–1*. The bottom display gives the current cook temperature for stage 1 of this recipe. Use the product keys to enter the desired cook temperature.
2. Press the ENTER KEY *(13)* to save the new cook temperature for stage 1. The top display reads Ct–2.

   NOTE: Repeat Steps 1–2 to program the cook temperature for additional stages. When the cook temperature for the final stage has been entered the top display reads Ct–1.
3. Press the SCAN KEY (14) to advance the programming mode to fan speed

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed for stage 1. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *HI* and *Lo*.
2. Press the ENTER KEY *(13)* to save the new fan speed for stage 1. The top display reads *SPd2*.

   NOTE: Repeat Steps 1–2 to program the fan speed for additional stages. When the fan speed for the final stage has been entered the top display reads SPd1.
3. Press the SCAN KEY (14) to advance the programming mode to the fan cycle time.

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle for stage 1. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. Press the ENTER KEY *(13)* to save the new fan cycle for stage 1. The top display reads *CYC2*.

   NOTE: Repeat Steps 1–2 to program the fan cycle for additional stages.
3. When the fan cycle for the final stage has been entered press the SCAN KEY (14).

   If no pulse cycles are programmed the control advances to timing mode.

   If pulse is used, the control returns to the first stage programmed for the pulse fan option. Follow Steps 4–5 to program the pulse on and off time.
4. The top display reads *on–x*. The bottom display gives the current pulse on time for this stage. Use the product keys to enter the desired pulse on time from 10 to 60 seconds. Press the SCAN KEY (14).
5. The top display reads *of–x*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (14). The control advances to the next stage programmed for the pulse fan option.

   NOTE: Repeat Steps 4–5 to program cycle times for all pulse fan stages. When the final pulse off time has been entered the control advances to timing mode.

Programming the Timing Mode:

NOTE: It may be necessary to press the ENTER KEY (13) until the top display reads tC—1.

There are 3 options for timing mode: Straight, Flex and Sensitivity.

1. The top display reads *tC—1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (10) to toggle between *St*, *FL* and *SEns*.
2. Press the ENTER KEY *(13)* to save the new timing mode for stage 1. The top display reads *tC—2*.

   NOTE: Repeat Steps 1—2 to program the timing mode for additional stages.
3. When the timing mode for the final stage has been entered press the SCAN KEY (14).

   If no sensitivity cycles are selected the control advances to PreAlarms.

   If sensitivity is used, the control returns to the first stage programmed with sensitivity. Follow Step 4 to program the sensitivity level.
4. The top display reads *SE—1*. Use the product keys to enter the desired sensitivity from 0—9. Press the SCAN KEY (14). The control advances to the next stage programmed for sensitivity.

   NOTE: Repeat Step 4 *to program sensitivity levels for all applicable stages. When the final sensitivity level has been entered the control advances to PreAlarms.*

Programming the PreAlarms:

A PreAlarm is an alarm that sounds during the cook cycle. PreAlarms can be used to alert the operator that the product needs to be turned or stirred, etc. Up to three PreAlarms can be programmed for each product.

1. The top display reads *A1__*. (The __ indicate the product key) The bottom display gives the alarm time. Use the product keys to enter the desired time for the first alarm. Press the ENTER KEY (13) to enter the PreAlarm time.

   NOTE: PreAlarm times are measured from the end of the total cook time. For example if the total cook time is 30:00 and a PreAlarm of 5:00 is entered, the alarm will sound 25 minutes into the cook cycle. If a PreAlarm of 0:00 is entered, no additional PreAlarms may be programmed for the selected product key.
2. Press the SCAN KEY (14).
3. The top display reads *AUTO*. The bottom display reads either YES or no. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the PreAlarm type.

   NOTE: An auto PreAlarm sounds for approximately 5 seconds, then shuts off automatically. For manual PreAlarms the operator must press the product key to silence the alarm.
4. The top display reads *A2__*. Repeat steps 1—3 for the second and third PreAlarm. When all PreAlarms have been entered the control advances to programming the head count.

Programming the Head Count:

1. The top display reads *HEAd*. The bottom display gives the current number of heads programmed for this product key. Use the product keys to enter the desired number of heads from 1–99.
2. Press the SCAN KEY (14). The programming for this recipe is now complete.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (9). The control returns to operating mode.

2ND LEVEL PROGRAMMING

Entering the programming mode

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 4 5 1 2. Press the ENTER KEY (13). The top display reads *SYS*.

Programming hold

Hold allows product to be kept warm in the oven at a programmed time and temperature. There are two hold modes available, auto and manual. If auto hold is enabled the control will automatically place the oven into the hold mode at the end of each cooking cycle. If manual hold is enabled the unit can be placed into the hold mode at any time.

1. Press the SCAN KEY (14). The top display reads *Hold*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14).

   If no is chosen:

   A.) The controller advances to programming the setback mode.

   If yes is chosen:

   A.) The top display reads *AUTO*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the desired hold mode.

   B.) The top display reads *HOLD*. The bottom display gives the current hold time. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter a hold time from 0 to 9 hours. Press the SCAN KEY (14) to enter the new hold time.

   C.) The top display reads *HOLD*. The bottom display gives the current hold temperature. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter a hold temperature from 140°F–210°F. Press the SCAN KEY (14) to enter the new hold temperature.

   D.) The top display reads *FAn*. The bottom display gives the current fan mode. To change the fan mode press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *Hi* and *Lo*. Press the SCAN KEY (14) to enter the new fan mode and continue with programming the setback mode.

Programming the setback mode

The setback mode operates as a power saving feature. After a period of non-use (the setback time) the oven temperature automatically decreases to the setback temperature. The oven will maintain this temperature until a product key is pressed.

1. The top display reads *SEtb*. The bottom display gives the setback mode. To change the setback press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *YES* and *no*. Press the SCAN KEY (14).

   If no is chosen:

   A.) The controller advances to programming the temperature mode.

   If yes is chosen:

   A.) The bottom display gives the current setback time. Press the TOGGLE/CLEAR KEY (10). Use the product keys to the enter the desired setback time. Press the SCAN KEY (14) to enter the new setback time.

   NOTE: The minimum setback time is 20:00. The maximum setback time is 59:59.

   B.) The bottom display gives the current setback temperature. Press the TOGGLE/CLEAR KEY (10). Use the product keys to the enter a setback temperature from 140°F–300°F. Press the SCAN KEY (14) to enter the new setback and continue with programming the temperature mode.

Programming the temperature mode (°F or °C)

1. The top display reads *dEg*. The bottom display gives the units. To change the units press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *F* and *C*.
2. Press the SCAN KEY (14) to enter the new temperature units and continue programming the oven size.

Programming the oven size

1. The top display reads *APPL*. The bottom display reads either *FULL* or *HALF*. Press the TOGGLE/CLEAR KEY (10) until the bottom display reads *HALF* for the CTBR-AP.
2. Press the SCAN KEY (14) to enter the oven size and continue with exiting the programming mode.

Exiting the programming mode

1. The top display reads *SYS*. Press the PROG KEY (9). The control returns to the operating standby mode.

Parameter	Default
Hold mode	NO
Setback	NO
Temperature Units	°F
Appliance Size	HALF

TABLE 3

PROGRAMMING THE OFFSET

Entering the offset programming mode

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the offset programming access code: 4 5 2 3. Press the ENTER KEY (13). The top display reads *oFF*. The bottom display reads *SEt*.

Programming the temperature offset

1. Press the SCAN KEY (14). The top display reads *oFST*. The bottom display reads either *xxF* or *–xxF*.
2. Press the TOGGLE/CLEAR KEY (10) to toggle between positive and negative. Use the product keys to the enter the desired temperature offset.
3. Press the SCAN KEY (14) to enter the new temperature offset.

Exiting the offset programming mode

1. Press the PROG KEY (9). The control returns to the operating standby mode.

ERROR CODES AND ALARMS

NOTE: The error codes will appear in the top display. All error codes are accompanied by an audible alarm.

Hi Oven temperature is more than 40°F above the highest setpoint.

Prob Probe failure.

HEAT ERR From a cool start (below 140°F), the oven takes more than 10 minutes to climb from 150-300°F. Press the TOGGLE/CLEAR KEY (10) to clear the prompt. This code indicates a problem with the system. Contact a service technician.

FAN ERR Indicates a fan failure during a call for heat. Press the TOGGLE/CLEAR KEY (10) to clear the alarm. The FAN ERR display remains active. Press the TOGGLE/CLEAR KEY (10) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.

FANC ERR Indicates a contact failure has occurred in the fan control circuit. Press the TOGGLE/CLEAR KEY (10) to clear the alarm. The FANC ERR display remains active. Press the TOGGLE/CLEAR KEY (10) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.

DOOR OPEN The controller senses the door is open. Close the door. If the door is closed contact a service technician.

REPLACING THE RECIPE CARD

1. Remove the two screws from the top and bottom of the control panel cover. Remove the cover.
2. Pull back the control decal.
3. Remove the old recipe card.
4. Insert the new recipe card.
5. Replace the control decal.
6. Replace the control cover.
7. Reinstall the screws.

BLODGETT IQ2™ VISION CONTROL

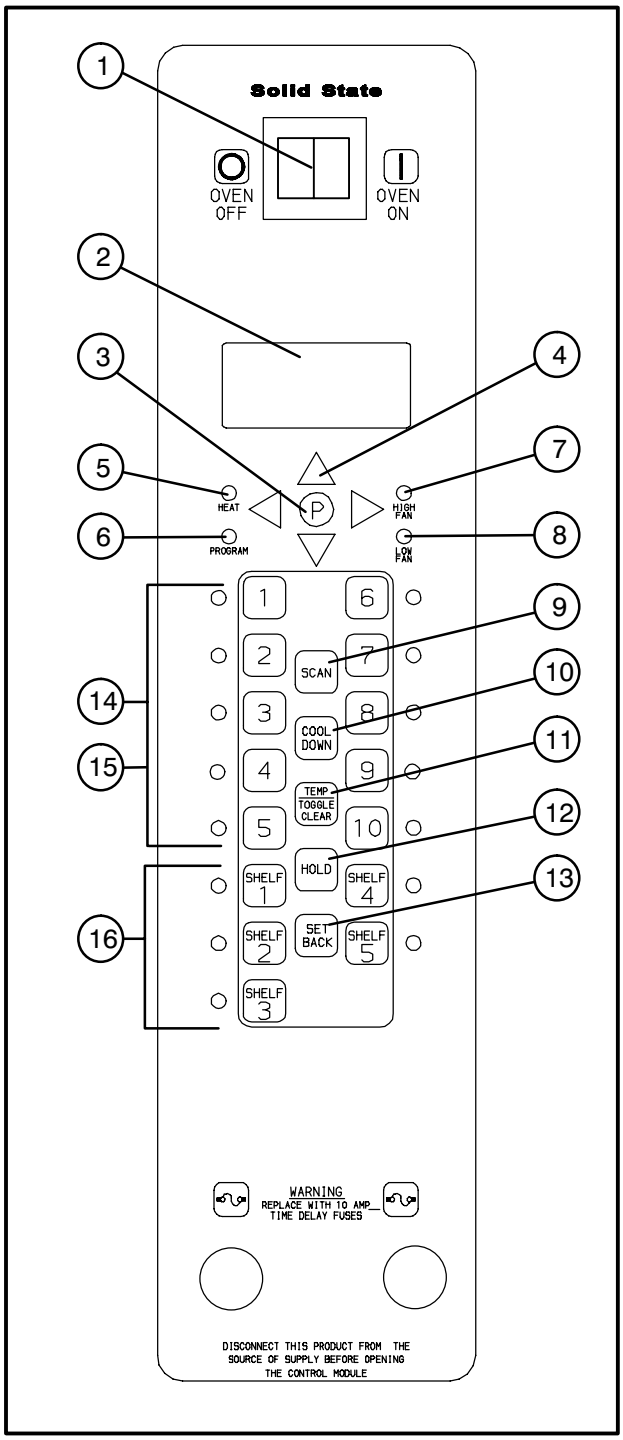


FIGURE 18

COMPONENT DESCRIPTION

1. OVEN POWER SWITCH – controls power to the oven.
2. DISPLAY – displays temperature and other controller related information.
3. PROGRAM KEY – press to enter the programming mode.
4. PROGRAM ARROW KEYS – use to move through programming menus and options
5. HEAT LED – when lit indicates the control is calling for heat.
6. PROG LED – when lit indicates the controller is in the programming mode.
7. HIGH FAN LED – when lit indicates the fan is running at high speed.
8. LOW FAN LED – when lit indicates the fan is running at low speed.
9. SCAN KEY – Press to view time remaining on multiple cook cycles and to review recipe programming.
10. COOL DOWN KEY – press to enter the cool down mode.
11. TEMP/TOGGLE/CLEAR KEY – press during programming to toggle options.
12. HOLD KEY – press to enter hold mode.
13. SET BACK KEY –
14. PRODUCT KEYS (1-10) – assigns a key to a programmed recipe and begins a programmed cooking process. Also used to enter numeric values in the programming mode.
15. PRODUCT LEDS – when lit indicate which product keys are currently in use or programmed for the current oven temperature and fan speed.
16. SHELF KEYS (1-5) – assigns a shelf key.

OVEN OPERATION

Oven Startup:

1. Toggle the POWER SWITCH (1) to *ON*. The display gives the software revision level. The oven preheats to the lowest programmed first stage temperature. The LEDS (16) for all products with the same first stage temperature light.

Single Product Cooking Procedure:

NOTE: If the led next to the desired product key is lit skip step 1.

1. Press the desired PRODUCT KEY (17). The oven preheats to the first stage temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the DISPLAY (2) read:

LOAD

2. Load the product into the oven. Press the desired PRODUCT KEY (17).

   If the shelf timing function is toggled to the on position for that product key, the DISPLAY (2) reads:

PICK SHLF

   Press a SHELF KEY (18) to assign the product to that shelf and start the cook cycle. Within five seconds, the DISPLAY (2) scrolls the product name and shelf number and counts down the remaining cook time.

   If the shelf timing function is toggled to the off position for that product, pressing the product key will start the cook cycle. The DISPLAY (2) scrolls the product name and counts down the remaining cook time.

   NOTE: If the selected product has a cook time of greater than 59:59 the DISPLAY (2) *switches to hours:minutes.*

   NOTE: If the selected product is a single stage recipe the LEDS for all single stage products with the same cook temperature and fan speed will light. If the selected product is a multiple stage recipe no other product LEDS will light.

   NOTE: Press and hold the selected product key for three seconds to cancel the cook cycle for normal operation. To cancel the cook cycle when using shelf timing, press and hold the corresponding SHELF KEY (18) for 3 seconds.

3. When the cook time expires an alarm sounds and the DISPLAY (2) reads:

DONE *Product name*

4. Press the selected product key to silence the alarm. Remove the product. If shelf timing is used, press the flashing SHELF KEY (18) to silence the alarm.

Multiple Batch Cooking Procedure:

This procedure is for single stage recipes with the same cook temperature and fan speed only.

NOTE: If the led next to the first desired product key is lit skip step 1.

1. Press the first desired PRODUCT KEY (17). The LEDS for all recipes with the same cook temperature and fan speed will light.

   The oven preheats to the cook temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the DISPLAY (2) reads:

LOAD

2. Load the product into the oven. Press the desired PRODUCT KEY (17).

   If the shelf timing function is toggled to the on position for that product key, the DISPLAY (2) reads

PICK SHLF

   Press a SHELF KEY (18) to assign the product to that shelf and start the cook cycle. Within five seconds, the DISPLAY (2) scrolls the product name and shelf number and counts down the remaining cook time.

If the shelf timing function is toggled to the off position for that product, pressing the product key will start the cook cycle. The DISPLAY (2) scrolls the product name and counts down the remaining cook time.

3. Load the second product. Press the desired PRODUCT KEY (17). the DISPLAY (2) reads

PICK SHLF

Press a SHELF KEY (18) to assign the product to that shelf and start the cook cycle for product two.

NOTE: Only products with lighted LEDS may be selected.

Repeat step 3 for additional products.

4. The DISPLAY (2) scrolls the product name and counts down the remaining cook time for the product with the least time remaining.

NOTE: To view the remaining cook time for the other products press and hold the SCAN KEY (15). The display cycles through the remaining cook times for each product. Only the led for the product with the cook time displayed will be lit.

5. When a cook time expires an alarm sounds. The display reads

DONE

The led for the finished product lights. All other LEDS are dark.

6. Press the SHELF KEY (18) for the finished product to silence the alarm. Remove the product. Close the oven door. The DISPLAY (2) scrolls the product name and counts down the remaining cook time for the product with the least time remaining.

7. When the cook time expires an alarm sounds and the display reads:

DONE

8. Press the SHELF KEY (18) to silence the alarm. Remove the product.

Oven Cool Down:

1. Close the oven door. Press the COOL DOWN KEY (8).

NOTE: Cool down cannot be activated with the oven door open. Once the cool down cycle has begun the doors may be opened to speed the cooling process.

To Review Repipe Programming:

1. Press the SCAN KEY (15). The display read:

RECIPE REVIEW Select Product

The LEDs (16) for all previously programmed product keys light. Press the PRODUCT KEY (17) you wish to review. The display gives the recipe cook time for stage 1. Use the PROGRAM ARROW KEYS (4) to scroll through the recipe programming for the selected product key.

2. The control will exit recipe review after 30 seconds if no key is pressed.

PRODUCT KEY PROGRAMMING

To enter the product programming mode

1. Press and hold the PROGRAM KEY (10). The DISPLAY (2) reads:

Prod Cnt Programming ⬆⬇

Use the PROGRAM ARROW KEYS (4) to highlight Programming. Press the PROGRAM KEY (10) to select. The display reads:

ENTER CODE

Use the PRODUCT KEYS (17) to enter the programming access code 1724. Press the PROGRAM KEY (10). The display reads:

RECIPE

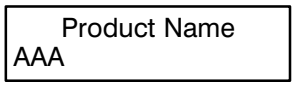
Press the PROGRAM KEY (10). All of the product LEDSs will light and the display reads:

Select Product To Program

To select the product to program

2. Press the desired product key. The display reads:

With All highlighted, press the PROGRAM KEY (10). The display reads:



The first alphabetical listing in the product name library appears.

3. To change the product name, use the PROGRAM ARROW KEYS (4) to scroll through the product name library. When the desired product name is highlighted, press the PROGRAM KEY (10) to select.

To program the product

4. The display reads:

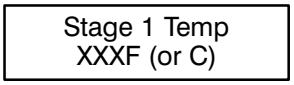
> **Definition:** Shelf cook enables the operator to reference product to one of the five shelf positions in the oven. At the end of a shelf cooking cycle the oven will display the name of the product and the shelf number that is ready to be pulled. **Shelf cooking is not available for multi-stage recipes.**
>
> Use non shelf cooking when you do not need to reference product to one of the five shelf positions in the oven. Non shelf cooking may be used for single stage recipes and **MUST be use for multi-stage recipes.**

Use the PROGRAM ARROW KEYS (4) to select either YES (for shelf cooking) or NO (for non shelf cooking). Press the PROGRAM KEY (10).

5. The display reads:

Use the PRODUCT KEYS (17) to enter the desired cook time. Press the PROGRAM KEY (10).

6. The display reads:



Use the PRODUCT KEYS (17) to enter the desired cook temperature. Press the PROGRAM KEY (10).

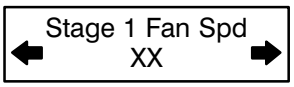
7. The display reads:

> **Definition:** There are 3 options for timing mode when shelf cooking: Straight, Flex and Sensitivity. Straight has no time adjustment. Flex adjusts the cook time to compensate for any difference between the setpoint and actual temperature. Sensitivity enables a product key to have a flex adjustment for each of the five shelves. Sensitivity values are set in the manager level programming.

NOTE: ***Sensitivity is only available when using shelf cooking.***

Use the PROGRAM ARROW KEYS (4) to select the desired timing mode. Press the PROGRAM KEY (10).

8. The display reads:



Use the PROGRAM ARROW KEYS (4) to select either HIGH or LOW fan speed. Press the PROGRAM KEY (10).

9. The display reads:

Stage 1 Fan Cyc
XXX

Definition: There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation when door is closed.

Use the PROGRAM ARROW KEYS (4) to select the fan cycle. If heat or full are selected skip to step 10. If pulse is selected the display reads:

Stage 1 Fan On
XX:XX

Use the PRODUCT KEYS (17) to enter the desired length of the time the fan should be on in the pulse cycle. Press PROGRAM KEY (10). The display reads:

Stage 1 Fan OFF
XX:XX

Use the PRODUCT KEYS (17) to enter the desired length of the time the fan should be off in the pulse cycle. Press the PROGRAM KEY (10).

10. If you are programming a product using shelf cooking skip to step 11.

    If you are programming a product that does not use shelf cooking the display reads:

    Stage 2 Time
    XX:XX

    Repeat steps 5 through 10 for each remaining stage. If you are programming a single stage recipe without shelf cooking enter at time of 00:00 for stage 2.

11. The display reads:

    Alarm 1 Time
    XX:XX

Definition: If you would like the alarm to sound prior to the completion of the cook cycle you may program it here. The alarm time counts up from the beginning of the cook cycle. For example, if you want an alarm 9 minutes into the cook cycle, program the alarm time at 9:00.

Use the PRODUCT KEYS (17) to enter the time for the first alarm to sound. If 00:00 is entered for an alarm time, skip to step NO TAG.

Press the PROGRAM KEY (10). If a time other than 00:00 is entered the display reads:

Alarm 1 Name
XXX

To change the alarm name, use the PROGRAM ARROW KEYS (4) to scroll through the alarm name library.

Press the PROGRAM KEY (10). The display reads:

Alarm 1 Done
XXX

Use the PROGRAM ARROW KEYS (4) to select either AUTOMATIC or MANUAL.

Press the PROGRAM KEY (10). The display reads:

Alarm 1 Tone
XXX

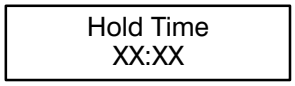
Use the PROGRAM ARROW KEYS (4) to select either NONE, SHORT, MEDIUM, LONG, DOUBLE, or LONG/SHORT.

Press the PROGRAM KEY (10). The display reads:

Alarm 2 TIme
XXX

Repeat step 11 for alarm 2. If no Alarm 2 is desired, enter a time of 0.

12. Press the PROGRAM KEY (10). The display reads:



Use the PRODUCT KEYS (17) to enter desired hold time. If a hold time of 00:00 is entered skip to step NO TAG. Press the PROGRAM KEY (10).

13. The display reads:

Use the PRODUCT KEYS (17) to enter desired hold temperature. The minimum hold temperature is 140F. Press the PROGRAM KEY (10).

14. The display reads:

Use the PROGRAM ARROW KEYS (4) to select either AUTOMATIC or MANUAL. Press the PROGRAM KEY (10).

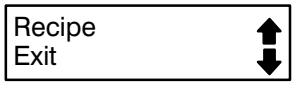
15. The display reads:

Use the PROGRAM ARROW KEYS (4) to select HIGH or LOW.Press the PROGRAM KEY (10).

To exit the program mode

16. The display reads:

Use the PROGRAM ARROW KEYS (4) to scroll down until exit is highlighted. Press the PROGRAM KEY (10). The display reads:



To program another product key select recipe. To exit the progam mode select exit. The display reads:

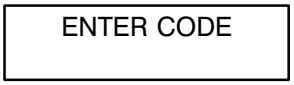
Use the PROGRAM ARROW KEYS (4) to scroll down until exit is highlighed. Press the PROGRAM KEY (10) to exit the programming mode.

MANAGER LEVEL PROGRAMMING

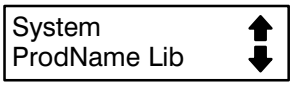
Entering the manager programming mode

1. Press and hold the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to highlight Programming. Press the PROGRAM KEY (10) to select. The display reads:



Use the PRODUCT KEYS (17) to enter the programming access code 6647. Press the PROGRAM KEY (10). The display reads:

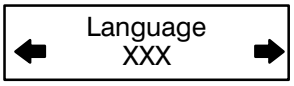


Programming the MANAGER SYSTEM options

1. With System highlighted, press the PROGRAM KEY (10) to select. The display reads:

Use the PROGRAM ARROW KEYS (4) to highlight electric half, electric full, XCEL, gas half or gas full. Press the PROGRAM KEY (10) to select the correct appliance type.

2. The display reads:



Use the PROGRAM ARROW KEYS (4) to selecteither English or Other. Press the PROGRAM KEY (10) to select the desired language.

3. The display reads:

Use the PROGRAM ARROW KEYS (4) to select None, 1, 2, 3 or 4. Press the PROGRAM KEY (10) to select the desired level for all audible signals.

4. The display reads:

Use the PROGRAM ARROW KEYS (4) to select either F or C. Press the PROGRAM KEY (10) to select the desired temperature units.

5. The display reads:

Use the PRODUCT KEYS (17) to enter the length of hold time for the manual hold button. Press the PROGRAM KEY (10).

If a time of 00:00 is enter skip to step 6.

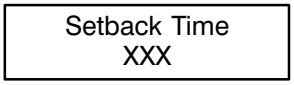
If a hold time is entered the display reads:

Use the PRODUCT KEYS (17) to enter the hold temperature for the manual hold button. Press the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to select either AUTOMATIC or MANUAL. Press the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to select HIGH or LOW. Press the PROGRAM KEY (10).

6. The display reads:

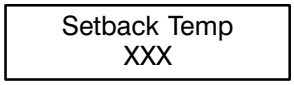


Definition – Setback time is an energy savings feature that automatically lowers the cavity temperature when the oven is idle.

Use the PRODUCT KEYS (17) to enter the length of the time the oven is idle before entering setback mode. Press the PROGRAM KEY (10).

If a time of 00:00 is enter skip to step 7.

If a setback time is entered the display reads:



Use the PRODUCT KEYS (17) to enter the setback temperature. Press the PROGRAM KEY (10).

7. The display reads:

Definition – If you are using sensitivity as a timing mode for single stage stage recipes this feature must be turned on.

Use the PROGRAM ARROW KEYS (4) to select either Yes or No. Press the PROGRAM KEY (10).

If no is selected skip to step 8.

If yes is selected the display reads:

Use the PRODUCT KEYS (17) to enter a sensitivity level of 1-9 for shelf 1. Press the PROGRAM KEY (10). Repeat for shelves 2-5.

8. The display reads:

Definition — This function programs time for the oven to idle after reaching the preheat temperature allowing heat to saturate the oven cavity. The preheat time only applies to the initial preheat after a cold start. This is strictly a prompt, the user may begin a bake cycle even with the preheat prompt displayed.

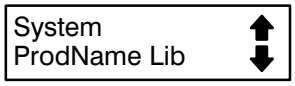
Use the PRODUCT KEYS (17) to enter a preheat time. Press the PROGRAM KEY (10).

Programming the PRODUCT NAME

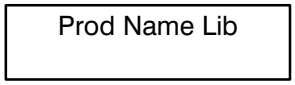
NOTE: Use these instructions to modify an existing name, to add a product name or to delete a name already in the library.

NOTE: Names may be up to 16 characters long and can contain letters and numbers.

1. After entering the manager level programming (see page 1—53) the display reads:



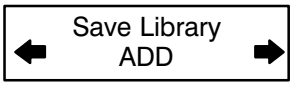
With ProdName Lib highlighted, press the PROGRAM KEY (10) to select. The display reads:



2. Use the up and down PROGRAM ARROW KEYS (4) to scroll through the existing product names. Or press the PRODUCT KEY (17) that corresponds with the first letter of the name you are looking for. Then use the PROGRAM ARROW KEYS (4) to scroll to the desired name.
3. Press the SCAN KEY (15) to edit the name.
4. Use the PRODUCT KEYS (17) to edit the product name. Press the right arrow key to advance to the next character.

   To clear the product name, press the TEMP/TOGGLE/CLEAR KEY (11).

   NOTE: Use product key 1 for spaces, periods, quotation marks and underlines.
5. Once the product name has been entered, press the PROGRAM KEY (10). The display reads:



Use the PROGRAM ARROW KEYS (4) to select either ADD, MODIFY or CANCEL. Select ADD to create a new product name. Select MODIFY to change an existing product name. Select CANCEL to exit the edit mode without saving your changes.

NOTE: To delete an exsisting product name, find the name in the product library. Press the TEMP/TOGGLE/CLEAR KEY (11) to clear the entire product name. Then select MODIFY to overwrite the name with a clear screen.

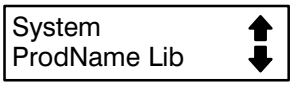
6. Press the PROGRAM KEY (10) to exit the product name library.

Programming the ALARM NAME

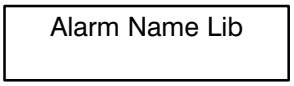
NOTE: Use these instructions to modify an existing name, to add an alarm name or to delete a name already in the library.

NOTE: Names may be up to 16 characters long and can contain letters and numbers.

1. After entering the manager level programming (see page 1—53) the display reads:



Use the PROGRAM ARROW KEYS (4) to highlight Alarm Lib. Press the PROGRAM KEY (10) to select. The display reads:

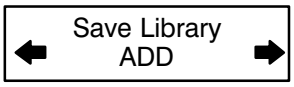


2. Use the up and down PROGRAM ARROW KEYS (4) to scroll through the existing alarm names. Or press the PRODUCT KEY (17) that corresponds with the first letter of the name you are looking for. Then use the PROGRAM ARROW KEYS (4) to scroll to the desired name.
3. Press the SCAN KEY (15) to edit the name.
4. Use the PRODUCT KEYS (17) to edit the alarm name. Press the right arrow key to advance to the next character.

To clear the alarm name, press the TEMP/ TOGGLE/CLEAR KEY (11).

NOTE: Use product key 1 for spaces, periods, quotation marks and underlines.

5. Once the alarm name has been entered, press the PROGRAM KEY (10). The display reads:



Use the PROGRAM ARROW KEYS (4) to select either ADD, MODIFY or CANCEL. Select ADD to create a new alarm name. Select MODIFY to change an existing alarm name. Select CANCEL to exit the edit mode without saving your changes.

NOTE: To delete an exsisting alarm name, find the name in the product library. Press the TEMP/TOGGLE/CLEAR KEY (11) to clear the entire alarm name. Then select MODIFY to overwrite the name with a clear screen.

6. Press the PROGRAM KEY (10) to exit the alarm name library.

Exiting the manager program mode

1. The display reads:

Use the PROGRAM ARROW KEYS (4) to scroll up until Exit is highlighted. Press the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to scroll up until Exit is highlighted. Press the PROGRAM KEY (10) to exit the programming mode.

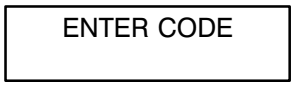
SERVICE LEVEL PROGRAMMING

Entering the SERVICE programming mode

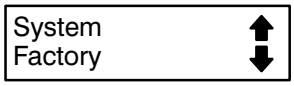
NOTE: All service programming options can be accessed using this program entry procedure.

1. Press and hold the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to highlight Programming. Press the PROGRAM KEY (10) to select.



Use the PRODUCT KEYS (17) to enter the programming access code 2000. Press the PROGRAM KEY (10). The display reads:



Programming the FACTORY functions

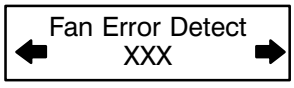
1. Use the PROGRAM ARROW KEYS (4) to select Factory. Press the PROGRAM KEY (10).
2. The display reads:

Use the PROGRAM ARROW KEYS (4) to select either 500 or 550. XCEL model ovens should be set to 550F. All other models should be set to 500F. Press the PROGRAM KEY (10).

3. The display reads:

Use the PROGRAM ARROW KEYS (4) to select either 1 Speed or 2 Speed. Only the DFG-50 is a 1 speed oven. Press the PROGRAM KEY (10).

4. The display reads:



Use the PROGRAM ARROW KEYS (4) to select either YES or NO. Press the PROGRAM KEY (10).

Using the DIAGNOSTICS function

1. Use the PROGRAM ARROW KEYS (4) to select Diagnostics. Press the PROGRAM KEY (10).
2. The display reads:

Recovery Time 1 XX:XX

Use the PROGRAM ARROW KEYS (4) to view the previous five recovery times. Press the PROGRAM KEY (10).

3. The display reads:

DIAGNOSTICS MODE

Press the PROGRAM KEY (10) to exit the diagnostics mode.

Using the TEMPERATURE OFFSET function

1. Use the PROGRAM ARROW KEYS (4) to select Temp Offset. Press the PROGRAM KEY (10).
2. The display reads:

Temp Offset XXF (or C)

Use the PRODUCT KEYS (17) to set the desired temperature offset. Use the horizontal PROGRAM ARROW KEYS (4) to toggles between + and −.

3. Press the PROGRAM KEY (10) to exit the temperature offset mode.

Viewing the SCK Address

1. Use the PROGRAM ARROW KEYS (4) to select SCK Address. Press the PROGRAM KEY (10).
2. The display reads:

SCK Address XXX

Use the PROGRAM ARROW KEYS (4) to change address. Press the Press the PROGRAM KEY (10) to save.

3. The display reads:

Network Nodes

Press the PROGRAM KEY (10).

Viewing and Resetting the PROGRAM RUN TIMES

1. Use the PROGRAM ARROW KEYS (4) to select RuntImes. Press the PROGRAM KEY (10).
2. The display reads:

Heat Cycles X

3. Press the PROGRAM KEY (10). The display reads:

Fan High Cycles X

4. Press the PROGRAM KEY (10). The display reads:

Fan Low Cycles X

5. Press the PROGRAM KEY (10). The display reads:

Probe Errors X

6. Press the PROGRAM KEY (10). The display reads:

Power On Time X

7. Press the PROGRAM KEY (10). The display reads:

Cold Starts X

8. Press the PROGRAM KEY (10). The display reads:

Hi LImit Temp X

9. Press the PROGRAM KEY (10). The display reads:

Recovery Errors X

10. Press the PROGRAM KEY (10). The display reads:

Use the PROGRAM ARROW KEYS (4) to togge select either Yes (to reset the counts) or No. Press the PROGRAM KEY (10)

Exiting the SERVICE program mode

NOTE: Use this exit procedure for all service programming options.

1. The display reads:

Use the PROGRAM ARROW KEYS (4) to scroll up until Exit is highlighted. Press the PROGRAM KEY (10).

2. The display reads:

Use the PROGRAM ARROW KEYS (4) to scroll up until Exit is highlighted. Press the PROGRAM KEY (10) to exit the programming mode.

HOW COOK AND HOLD WORKS

With the optional COOK & HOLD feature, meat is roasted at lower temperatures for longer periods of time. This preserves flavor and tenderness and prevents over drying. There are three phases in cook and hold roasting.

- **Primary Cooking** – controlled by the COOK & HOLD TIMER. The meat is cooked at a low temperature until approximately 2/3 done.
- **Cooking from Stored Heat** – when the primary cook time expires, the oven automatically switches to HOLD. The product continues to cook from the heat stored in the oven. Meat must remain in the hold cycle for a minimum of 1-1/2 to 2 hours before being served.
- **Hold** – holds the product for several hours before serving without loss of moisture or tenderness.

All meat should be completely thawed by refrigeration. Using frozen meat increases the cook time causing shrinkage.

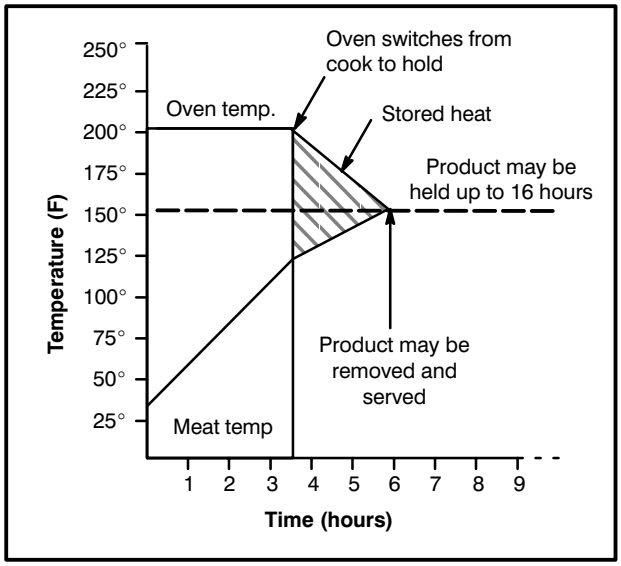


FIGURE 19

Product	Cook Temp.	Hold Temp.	Quantity	Cook Time (Hrs)	Min. Hold Time (Hrs)	Total Time (Hrs)
Prime rib, bone cap off 14-18 lbs. (6.4-8.1 kg)	200°F 93°C	140°F 60°C	1 3 6	3 3-1/4 3-1/2	1 1-1/2 2	4 4-3/4 5-1/2
Prime rib, bone cap on 14-18 lbs. (6.4-8.1 kg)	200°F 93°C	140°F 60°C	1 3 6	3-1/2 4 4-1/2	1 1-1/2 2	4-1/2 5-1/2 6-1/2
Top or bottom rounds 20-22 lbs. (9.1-10.0 kg)	200°F 93°C	140°F 60°C	1 3 6	3-1/2 4 4-1/2	1 1-1/2 2	4-1/2 5-1/2 6-1/2
Pork roast or ham 10-12 lbs. (4.5-5.4 kg)	250°F 121°C	170°F 76°C	2 4 6	4 4-1/4 4-1/2	1 1-1/2 2	5 5-3/4 6-1/2
Turkey 20-22 lbs. (9.1-10.0 kg)	250°F 121°C	170°F 76°C	1 6	3-1/4 4	1 1-1/2	4-3/4 5-1/2
Leg of Lamb, bone in 8-10 lbs. (4.36-4.5 kg)	225°F 107°C	160°F 71°C	2 4 6	2-1/2 2-3/4 3	1 1-1/2 2	3-1/2 4-1/4 5

TABLE 4

CHAPTER 2

DECK OVEN CONTROLS

1200 SERIES CONTROL

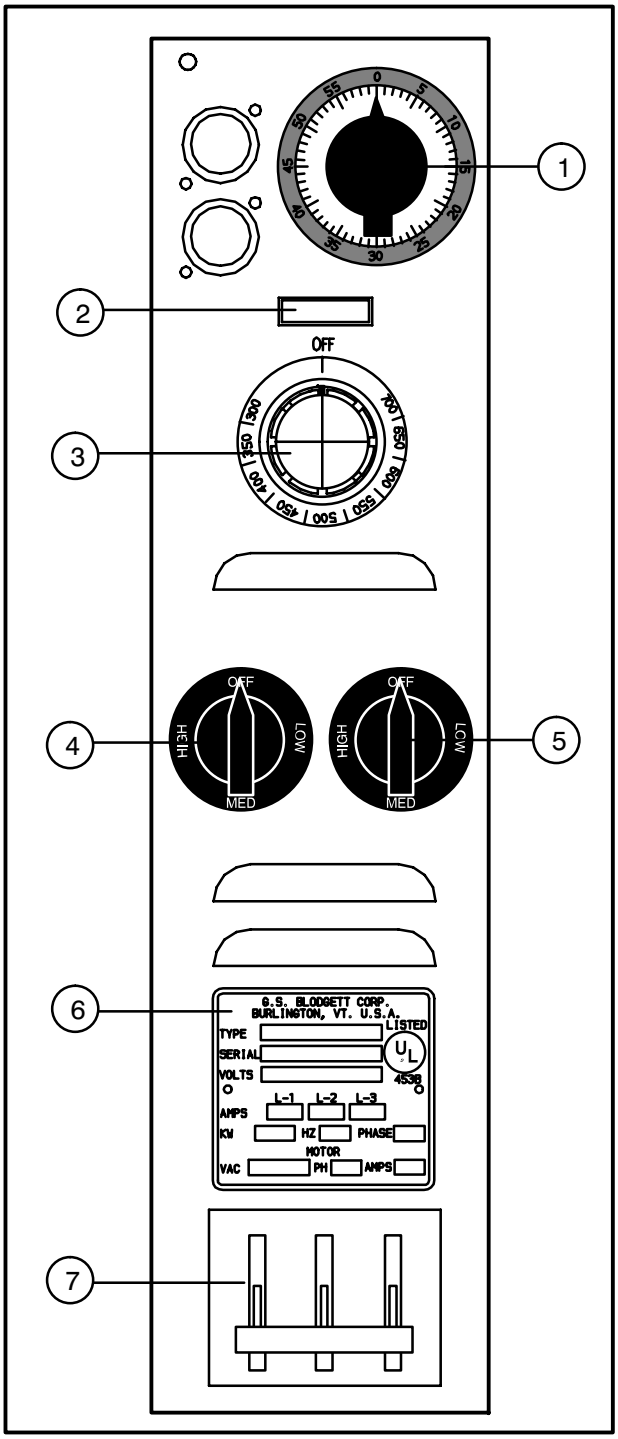


FIGURE 1

COMPONENT DESCRIPTION

1. TIMER – Used to set the desired cook time.
2. THERMOSTAT INDICATOR LIGHT – When lit indicates heaters are in operation. When the light goes out, the oven has reached set operating temperature.
3. OVEN THERMOSTAT – Controls the oven temperature at desired settings.
4. UPPER HEATER SWITCH – Controls input to the upper heater. OFF = no input, LOW = 1/4 input, MED = 1/2 input, HIGH = full input.
5. LOWER HEATER SWITCH – Controls input to the lower heater. OFF = no input, LOW = 1/4 input, MED = 1/2 input, HIGH = full input.
6. RATING PLATE – Contains electrical rating information.
7. CIRCUIT BREAKER – Low voltage ovens only (208 through 240 VAC). Must be in the ON position for oven operation.

INITIAL STARTUP

1. Set the THERMOSTAT (3) to 300°F (149°C).
2. Turn the UPPER and LOWER HEATER switches (4 and 5) to *HIGH*. Allow the oven to run for at least 2 hours for proper break-in.

OPERATION:

1. Set the THERMOSTAT (3) to the desired cooking temperature.
2. Turn the UPPER and LOWER HEATER switches (4 and 5) to *HIGH*.
3. When the oven has reached operating temperature set the heater switches to desired level.

   NOTE: With Ultra Rokite decks never put bottom element on HIGH and top element OFF.
4. Set the TIMER (1) to the desired cook time.

1400 SERIES – ELECTRO MECHANICAL THERMOSTAT & TIMER

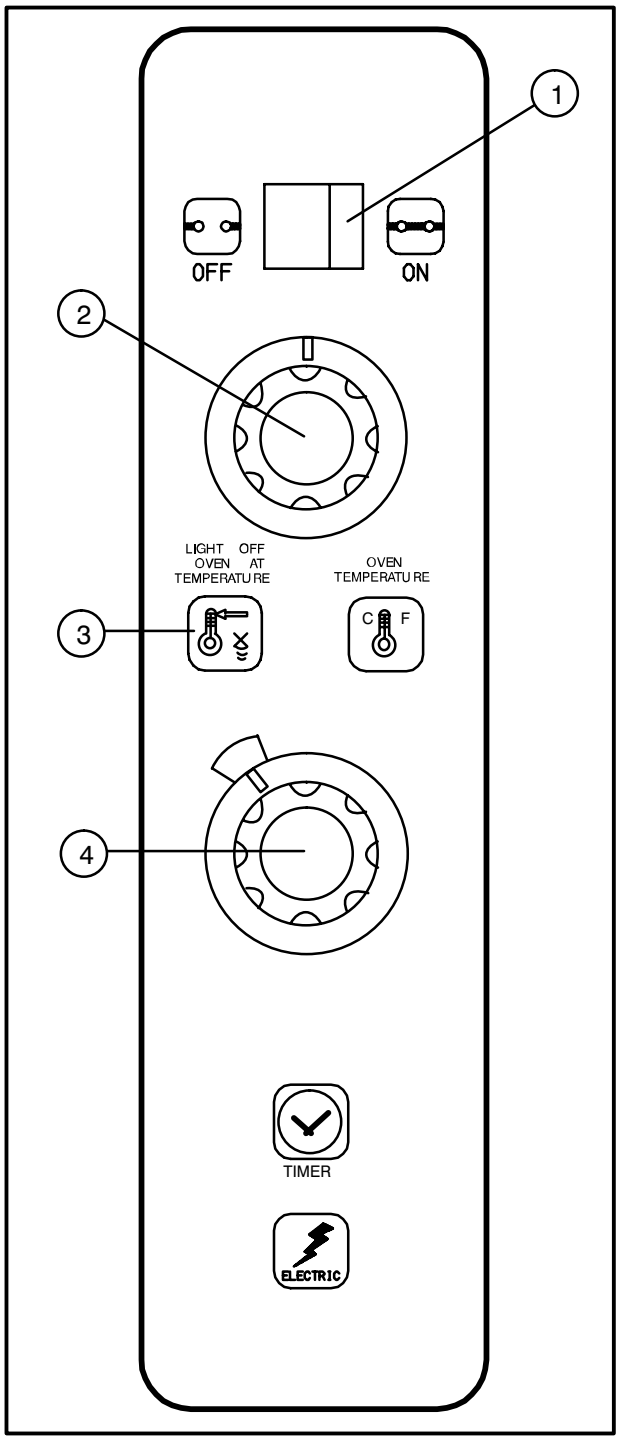


FIGURE 2

COMPONENT DESCRIPTION

1. POWER SWITCH – Controls the power to the oven. When switched to OVEN ON, the oven is operating in the normal heating mode. OVEN OFF, turns the oven off.
2. OVEN THERMOSTAT – Controls the oven temperature at desired settings.
3. LIGHT OFF OVEN INDICATOR LIGHT – When lighted indicates heaters are in operation. When the light goes out, the oven has reached set operating temperature.
4. TIMER – Activates an electric buzzer which, upon expiration of time, will sound to remind the operator to remove the product.

OPERATION

1. Depress the right hand side of the POWER SWITCH (1) to turn the oven ON. The elements will come on, this is indicated by the INDICATOR LIGHT (3).
2. Set the THERMOSTAT (2) to the desired baking temperature.
3. The INDICATOR LIGHT (3) will go out when the oven has reached the set operating temperature.
4. The TIMER (4) is set to measure a cooking cycle by turning the knob clockwise to the desired time. When selecting a cook time less than ten minutes, turn the knob past the ten minute interval and reverse direction to the desired setting. At the end of the elapsed time the buzzer will sound. The buzzer is turned off by rotating the TIMER (4) to the OFF position.

   NOTE: The TIMER will not control any temperature functions.

1400 SERIES – SOLID STATE TEMPERATURE CONTROL

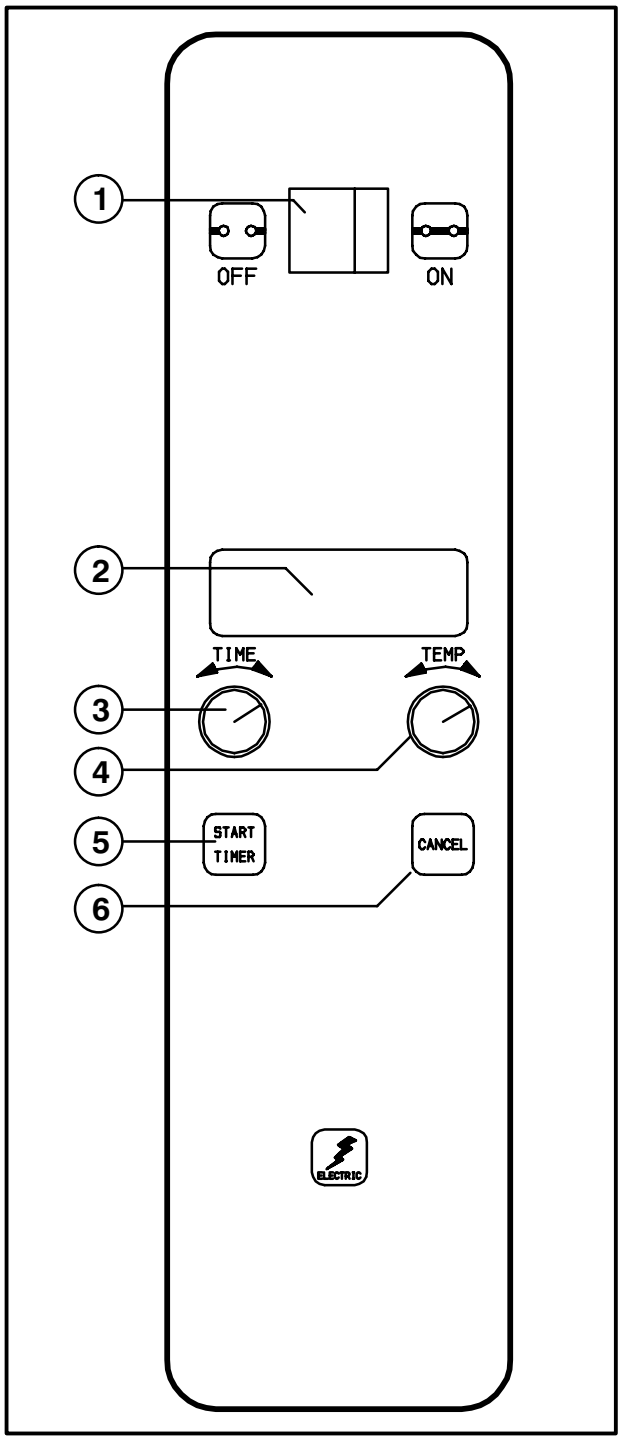


FIGURE 3

COMPONENT DESCRIPTION

1. POWER SWITCH – Controls the power to the oven. When switched to OVEN ON, the oven is operating in the normal heating mode. OVEN OFF, turns the oven off.
2. DIGITAL DISPLAY – Displays the time, temperature and controller related information.
3. TIME DIAL – A dial to set the cook time.
4. TEMPERATURE DIAL – A dial to set the cook temperature.
5. START TIMER – Starts the timing cycle.

   NOTE: To display the ACTUAL OVEN TEMPERATURE, press and hold for 3 seconds.
6. CANCEL – Press to cancel the end of time cycle warning. Press to abort time cycle in progress.

OPERATION

1. Toggle the POWER SWITCH (1) to OVEN ON. The cooling fan will start.
2. Turn the TEMPERATURE DIAL (3) to select the desired pre-heat temperature. The selected pre-heat temperature will begin flashing.
3. When the temperature shown in the DIGITAL DISPLAY (2) stops flashing, the oven has reached operating temperature. Set the desired TIME and TEMPERATURE manually with the appropriate dials (3 and 4).
4. Press START TIMER (5). The timer will count down the set time. Upon completion of the set time, the buzzer will sound. Press CANCEL (6) and remove the product.
5. To shut the oven off, toggle the POWER SWITCH (1) to OVEN OFF.

900 SERIES CONTROL

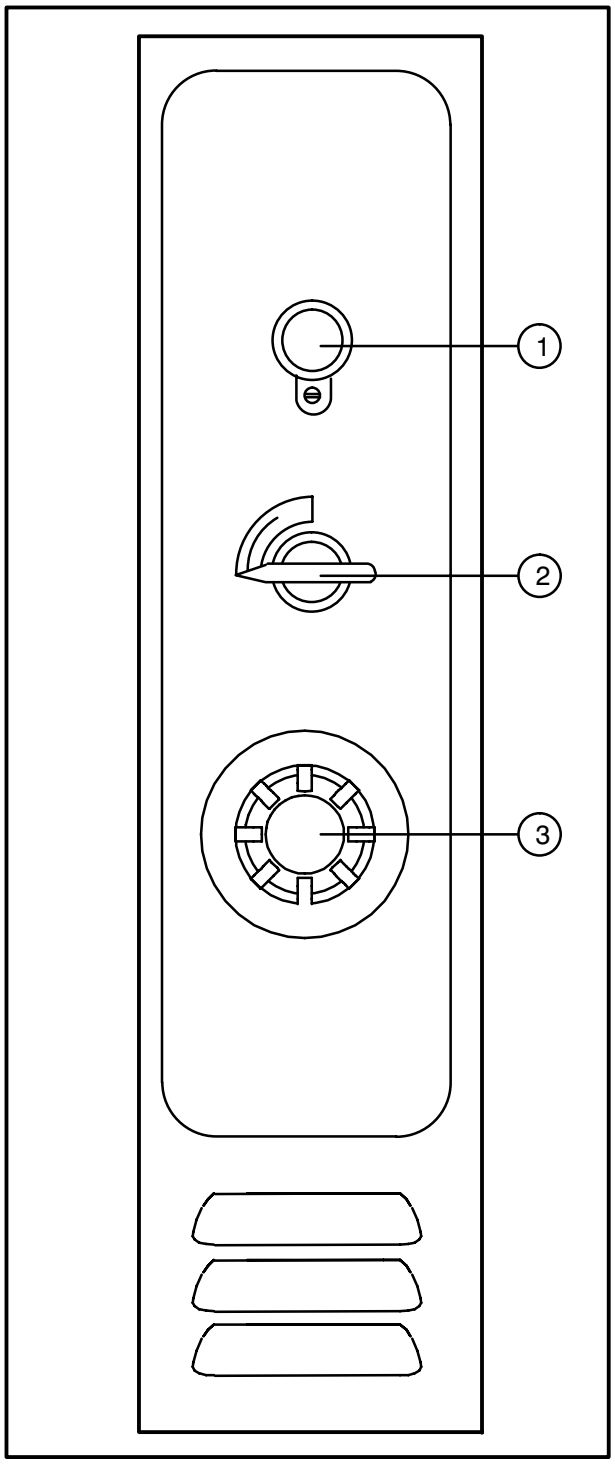


FIGURE 4

CONTROL DESCRIPTION

1. AUTOMATIC SAFETY PILOT VALVE – provides complete gas shut-off in the event of pilot failure.
2. MANUAL CONTROL VALVE – provides manual control of gas flow to the main burner through the thermostat.
3. THERMOSTAT – Provides regulation of oven temperature at setting selected by the oven operator.

OPERATION

Lighting

1. Turn the MANUAL CONTROL VALVE (2) to *OFF*.
2. Push the red button on the AUTOMATIC SAFETY PILOT VALVE (1).
3. Apply a lighted match or taper to pilot burner.
4. After pilot burner lights, continue to depress red button for about 30 seconds and release.
5. Turn the MANUAL CONTROL VALVE (2) to *ON*.
6. Set THERMOSTAT (3) to desired temperature.

Preheating

1. On initial startup, preheat the oven to 500°F (260°C) two hours prior to loading and check oven periodically. This will allow paint to set properly.

Loading

- The deck is intended for cooking pizza and bread products, other types of food may be cooked in pans or containers.
- Load each baking shelf evenly.
- Do not allow pans to touch each other or sides of oven.
- Do not load additional products after goods have begun to bake.
- Open doors as seldom as possible.
- In two shelf ovens, load lower compartment first.

To turn the oven off

1. Turn the MANUAL CONTROL VALVE (2) to *OFF*.

1048 & 1060 SERIES CONTROL

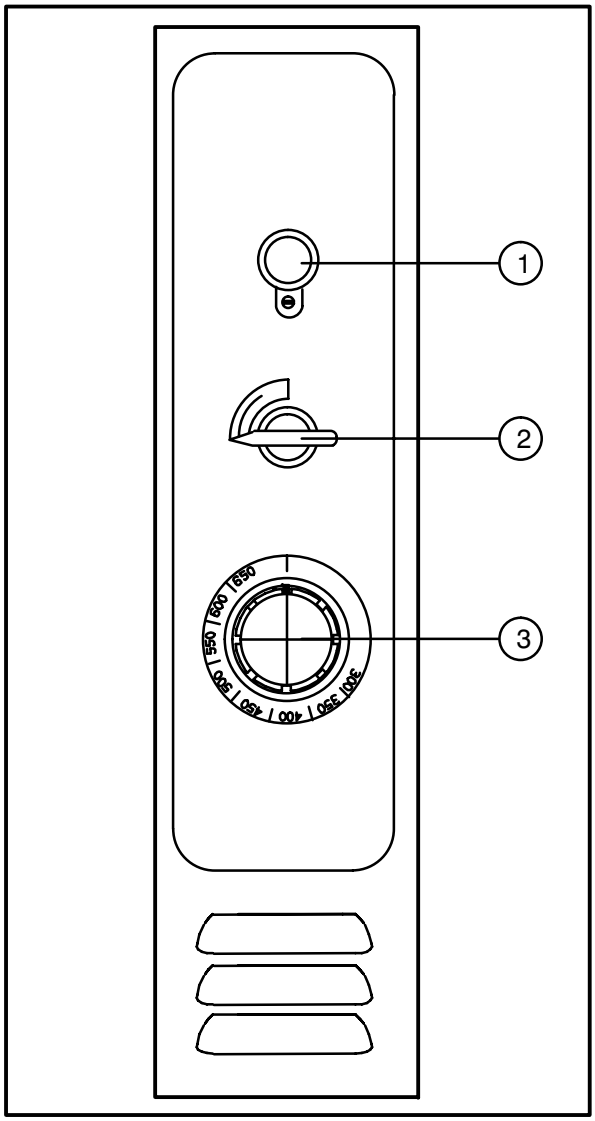


FIGURE 5

CONTROL DESCRIPTION

1. AUTOMATIC SAFETY PILOT VALVE — provides complete gas shut-off in the event of pilot failure.
2. MANUAL CONTROL VALVE — provides manual control of gas flow to the main burner through the thermostat.
3. THERMOSTAT — Provides regulation of oven temperature at setting selected by the oven operator.

OPERATION

The operation of the 1048 Series Oven is as simple as 1, 2, 3. — Lighting, Preheating and Loading.

Lighting

1. Turn the MANUAL CONTROL VALVE (2) to *OFF*.
2. Push the red button on the AUTOMATIC SAFETY PILOT VALVE (1).
3. Apply a lighted match or taper to pilot burner.
4. After pilot burner lights, continue to depress red button for about 30 seconds and release.
5. Turn the MANUAL CONTROL VALVE (2) to *ON*.
6. Set THERMOSTAT (3) to desired temperature.

Preheating

1. On initial startup, preheat the oven to 600°F (315°C) over a period of four hours in increments of 100°F (55°C) starting at 300°F (149°C). Check the oven periodically. This will temper the Ultra Rokite shelves and burn off any oil and fiberglass residue.

   NOTE: The 1048 (with Ultra Rokite shelves) will require an additional 20 minutes on a preheat to 600°F (315°C).

Loading

Pizza in pans should be placed in rotation on the shelf allowing it to recover its loss of temperature from the previous bake. Do not allow pans to touch each other or sides of oven. Open doors as seldom as possible.

The deck is intended for cooking pizza and bread products, other types of food may be cooked in pans or containers.

To turn the oven off

1. Turn the MANUAL CONTROL VALVE (1) to *OFF*.

NOTE: When the oven is shut down, place the Main Manual Control Valve in the OFF position. It is not necessary to extinguish the pilot flame.

1048DD CONTROL

1. STEAM POWER SWITCH – Controls power to the steam generator.
2. TEMPERATURE KEY – Displays the current temperature. Used to toggle between the panel and the deck temperature.
3. PANEL LIGHT – Illuminates when the temperature on the display indicates the top panel.
4. TIME KEY – Used in Cook mode to view the remaining cook time. If not in cook mode, push to display the current mode, either preheat or ready.
5. DISPLAY – Displays time and temperature and other information related to oven function.
6. READY LIGHT – When lit indicates the oven has reached operating temperature.
7. HEAT LIGHT – Indicates that the burners are operating.
8. STEAM LIGHT – Indicates that the steam solenoid is open allowing steam to enter the unit.
9. DECK LIGHT – Illuminates when the temperature on the display indicates the deck.
10. UP/DOWN ARROW KEYS – Used to increase/decrease units during the programming mode.
11. SLEEP MODE KEY – Maintains the oven at the preset overnight temperature.
12. STEAM KEY – Used to toggle between steam on and off.
13. PLUS 1 KEY – Adds additional cook time from 1 minute to 4 minutes in 1 minute increments.
14. PRODUCT KEYS – Used to select desired product programming information.
15. POWER SWITCH - Controls power to the oven. The switch will illuminate when the power is on.

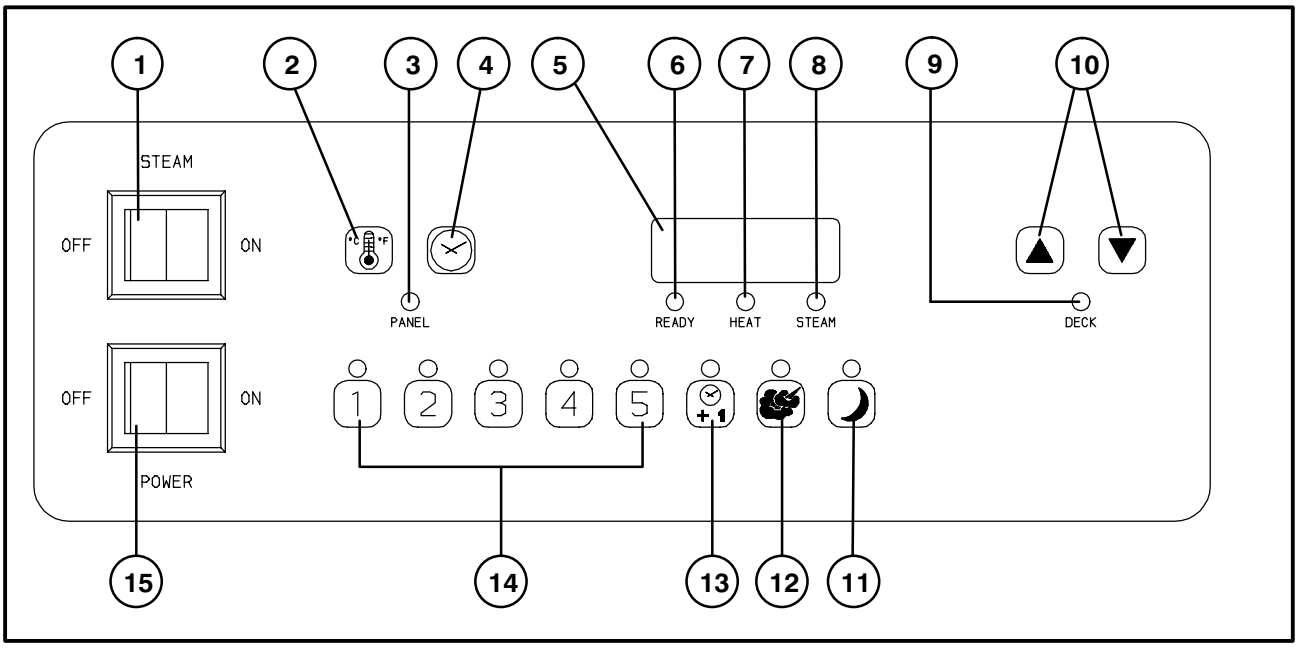


FIGURE 6

PREHEAT CYCLE

NOTE: From a cold start it will take 2-3 hours to preheat the deck. From the sleep mode it will take 1-2 hours to preheat the deck.

1. Toggle the power switch on the front of the steam generator to *ON*.

   NOTE: The generator fills for approximately three seconds after being turned on. DO NOT turn the generator on and off continuously. This can cause the generator to overfill.

2. **From a cold start** – Turn both the POWER SWITCH (2) and the STEAM SWITCH (1) on the control panel to *ON*.

   From the sleep mode – Turn the STEAM SWITCH (1) on the control panel to *ON*.

NOTE: All three of these switches must be ON. Steam will be injected into the oven to complete the preheat cycle.

3. The display reads *Prht*. The computer controls the panel temperature during the preheat cycle as follows.

   A.) High fire until the deck reaches 375°F.

   B.) Low fire until the deck reaches 430°F.

   The panel temperature is greater than 500°F during the preheat cycle. **When the deck temperature reaches approximately 430°F the control injects two minutes of steam to lower the panel temperature and purge any moisture from the steam piping.**

4. When the panel temperature is below 500°F and the deck temperature is approximately 430°F the display reads *rdY*.

Check the deck for excess water before baking.

1. Close the oven door. Press the steam button for 10 seconds.
2. Open the oven door. Carefully check the deck for excess water.

CAUTION:

Steam is hot! If water is present, wait for the deck to dry and repeat.

THE IDLE CONDITION

The computer maintains the following temperatures when the oven is idle.

1. High fire maintains a panel temperature of approximately 460°F.
2. Low fire maintains a deck temperature of approximately 430°F.

OVEN OPERATION

1. When the display reads *rdY*, load product into the oven.
2. Press the desired PRODUCT KEY (14).

   NOTE: To view the current temperature, press the TEMP KEY (2). To return to the countdown mode press the TIME KEY (4).

3. A buzzer sounds when the countdown is completed
4. If the product is not done, press the PLUS 1 KEY (13) to add from 1–4 minutes of additional cook time.
5. When the product is done press the selected PRODUCT KEY (14) to silence the buzzer.
6. Remove the product from the oven.

WARNING!!

In the event of a power failure, all switches should be turned off and no attempt should be made to operate the appliance until power is restored.

In the event of a shut-down of any kind, allow a five (5) minute shut-off period before attempting to restart the oven.

NOTE: Units with casters – If the oven is moved, the restraint must be reconnected after the oven is returned to it's normal position.

SLEEP MODE:

The sleep mode is used to maintain a deck temperature of approximately 200°F overnight. Using the sleep mode decreases the preheat time for the deck the following morning. **Be sure the mechanically driven hood is left on.**

1. Toggle the STEAM SWITCH (2) on the control panel to *OFF*.
2. Press and hold the SLEEP MODE KEY (3) for 2 seconds to enter the sleep mode. The display reads *rEST*.

PROGRAMMING

To enter the programming mode:

1. Push and hold both UP and DOWN ARROW KEYS (10) until the display reads *tInE*.
2. Press the PRODUCT KEY (14) you want to program. The red indicator light above the selected key will illuminate.

Programming the product keys:

1. The display flashes *tInE* and the current programmed cook time. Use the UP and DOWN ARROW KEYS (10) to increase/decrease the units until the desired cook time is displayed. Press the selected product key to enter the new cook time.
2. The display flashes *toP* and the current cook temperature for the top panel. The PANEL LIGHT (3) illuminates. Use the UP and DOWN ARROW KEYS (10) to increase/decrease the units until the desired top cook temperature is displayed. Press the selected product key to enter the new temperature.
3. The display flashes *dEcH* and the current cook temperature for the deck. The DECK LIGHT (9) illuminates. Use the UP and DOWN ARROW KEYS (10) to increase/decrease the units until the desired top cook temperature is displayed. Press the selected product key to enter the new temperature.
4. The display flashes *StEn* and the current steam time. The STEAM LIGHT (8) illuminates. Use the UP and DOWN ARROW KEYS (10) to increase/decrease the units until the desired top steam time (from 0-3:59) is displayed. Press the selected product key to enter the new steam time.

NOTE: To program additional product keys, press the desired product key and repeat STEPS 1-4.

To exit the programming mode:

1. Select Product key #5. The red indicator light above the key #5 will illuminate.
2. Push the TIME KEY (4). The display flashes *Loc* and *0*. **DO NOT press the arrow keys. Doing so will disable the program mode in the future.** Press the TIME KEY again.

BAKING TIPS

Current Program for Bagel Baking

Steam is applied for the first minute of the 17:30 bake time. The deck temperature is approximately 430°F. The panel bake temperature is approximately 490°F.

Product Loading:

Product should be evenly spaced on the deck. Bagels will double in size during baking. Be sure to allow room for expansion.

DO NOT place the bagels too close to the interior walls of the oven. This can cause scorching.

DO NOT place bagels too close together. The bagels expand and white spots may form.

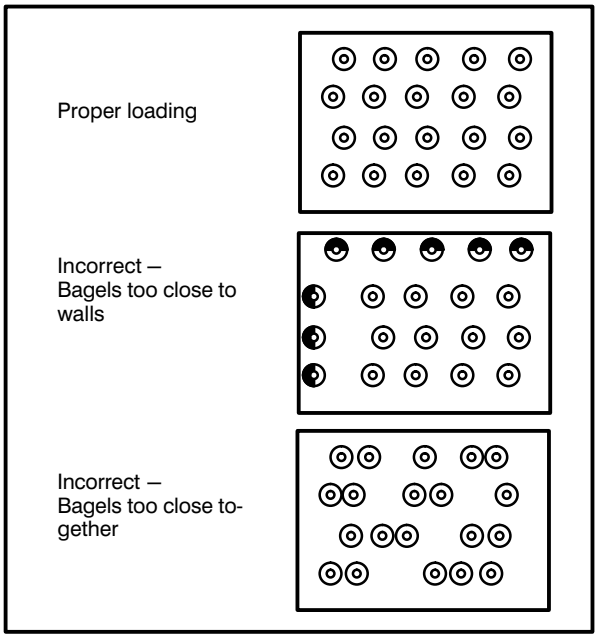


FIGURE 7

CHAPTER 3

COMBI CONTROLS

STANDARD CONTROLS

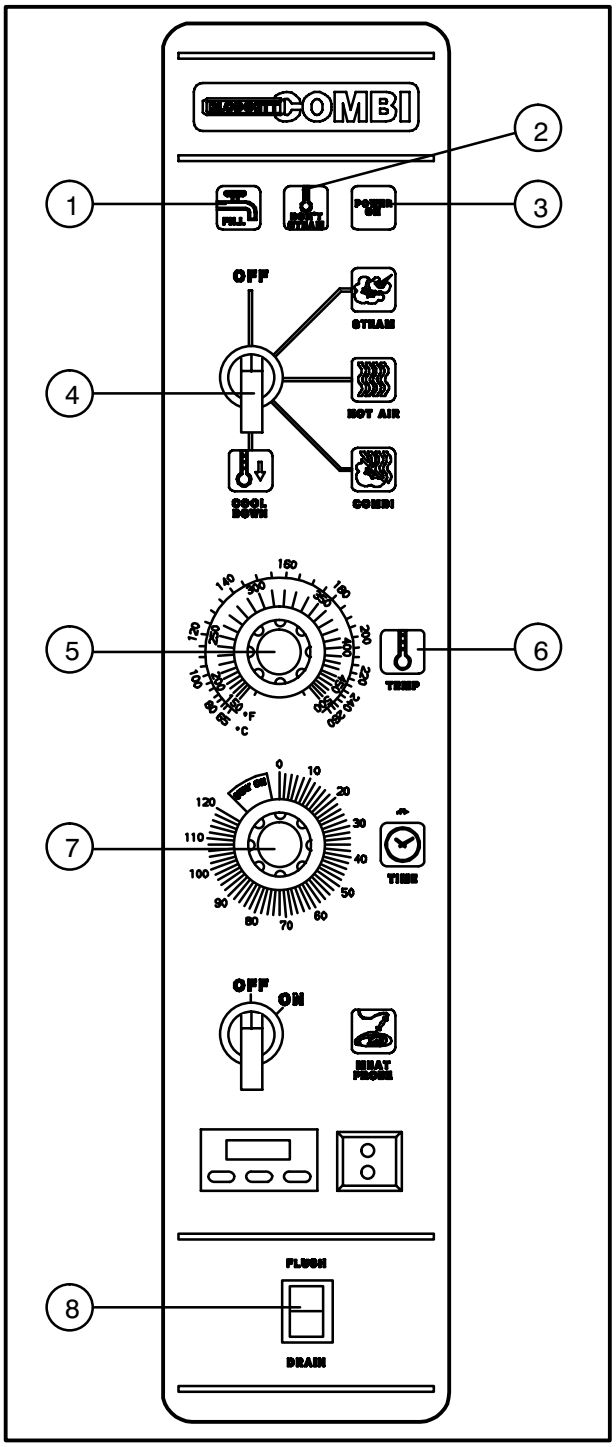


FIGURE 1

CONTROLS IDENTIFICATION

1. **LOW WATER FILL LIGHT** – during the fill cycle, this light remains on until the water in the steam generator is at the proper level and up to temperature. During normal operation the light should not be on. If the light comes on, check the water level in the steam generator.
2. **DON'T STEAM LIGHT** – indicates the unit is too hot to operate in the steam mode. Place the unit in the Cool Down mode until the temperature is below 230°F (110°C) and open the door. This light does not inhibit steam production.
3. **POWER ON LIGHT** – indicates the unit is in Steam, Hot Air or Combi.
4. **MODE SELECTOR SWITCH** – turns power to the oven on or off. Allows selection of Steam, Hot Air, Combi or Cool Down Modes.
5. **TEMPERATURE DIAL** – used to set desired cooking temperature.
6. **HEATING INDICATOR LIGHT** – lights when the Hot Air heating is in operation.
7. **TIMER DIAL** – used to set desired cooking time.
8. **FLUSH/DRAIN SWITCH** – used to flush/drain the steam generator for decalcification.

OPERATION

1. Turn the MODE SELECTOR Switch (4) to the desired function.

   The POWER ON Light (3) illuminates.

2. Set the TIMER (5) for the desired cooking time or set it to *STAY ON*. The buzzer sounds and the unit shuts off when the time has expired.

3. For the HOT AIR and COMBI modes, set the TEMPERATURE Dial (2) to the desired cook temperature. The HEATING INDICATOR Light (6) illuminates and stays lit until the desired temperature is reached. The temperature dial does not operate during the STEAM portion of the COMBI mode.

4. The selected mode operates automatically. The temperature, time and mode can be altered at any time during the cooking process. The operation can be stopped by the use of the Mode Selector Switch or by opening the door.

5. At the end of the specified time period, the buzzer sounds and the appliance shuts off automatically. Move the TIMER (5) to the *STAY ON* position to stop the buzzer and restart the unit.

6. To cool down the oven cavity, switch the MODE SELECTOR Switch (4) to COOL DOWN. In the Cool Down mode neither the temperature dial or the timer will be operational. The blower will function with the door open or closed.

7. The mode selector switch is also the main power switch. In the OFF position the appliance is not operational.

OPTIONAL COOK & HOLD

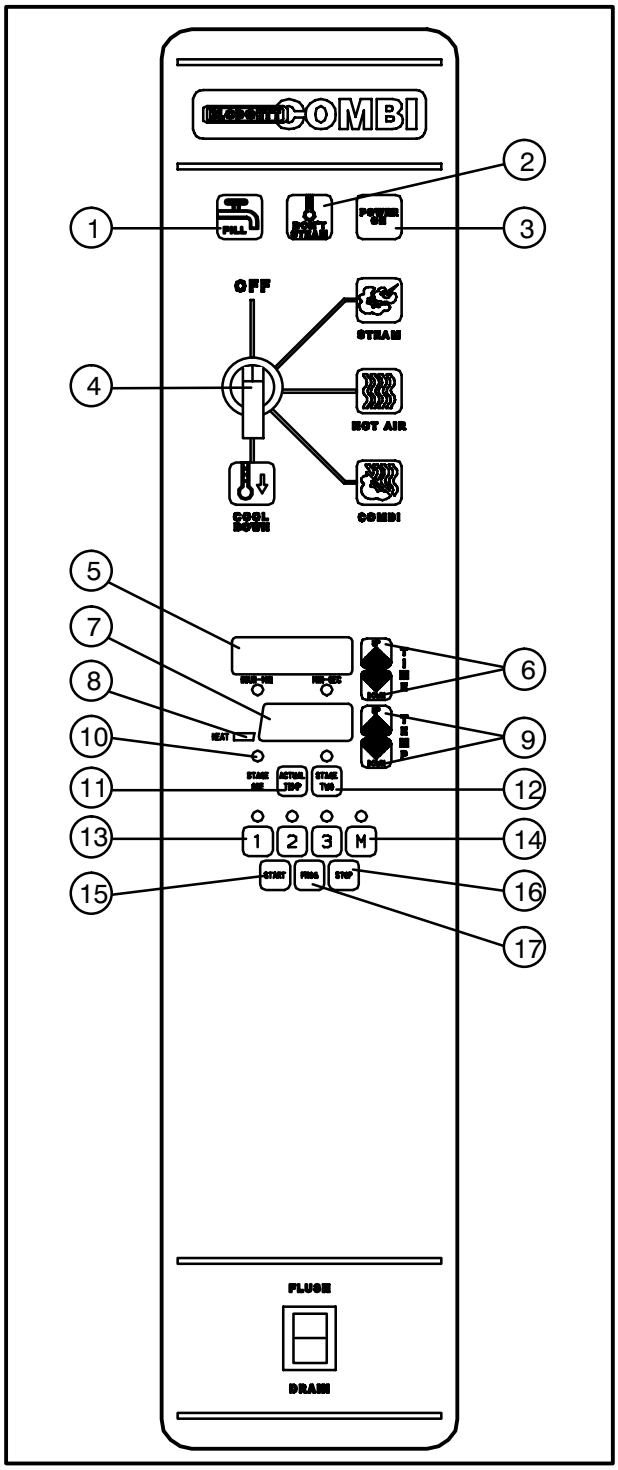


FIGURE 2

CONTROLS IDENTIFICATION

1. **LOW WATER FILL LIGHT** – when lit indicates low water level in the steam generator.
2. **DON'T STEAM LIGHT** – when lit indicates the unit is too hot to operate in the steam mode.
3. **POWER ON LIGHT** – when lit indicates power to the unit is turned on.
4. **MODE SELECTOR SWITCH** – controls power to the oven and selection of steam, hot air and combi modes. The convection fan runs with the switch in steam, hot air, combi or cool down.
5. **TIME DISPLAY** – gives cook time.
6. **TIME ARROW KEYS** – press to enter cook time from 00:00 to 99:59.
7. **TEMPERATURE DISPLAY** – gives cook temperature.
8. **HEAT LIGHT** – when lit indicates hot air or steam is in operation.
9. **TEMPERATURE ARROW KEYS** – press to enter cook temperature from 120–212°F (48–100°C) for steam and 140–500°F (60–260°C) for hot air/combi.
10. **STAGE ONE LED** – when lit indicates operation or programming of stage one for the current product. Cook cycles may contain one or two different stages.
11. **ACTUAL TEMP KEY** – press to display actual oven/steamer temperature
12. **STAGE TWO KEY** – press to enter stage two cook time and temperature.
13. **PRODUCT KEYS** – three programmable keys.
14. **MANUAL PRODUCT KEY** – default product key used for manual and programmed cooking.
15. **START KEY** – press to begin a cook cycle.
16. **STOP KEY** – press to silence audible alarms and pause or cancel cook cycles.
17. **PROGRAM KEY** – press to enter programming mode and save programmed settings.
18. **FLUSH/DRAIN SWITCH** – Used to flush/drain the steam generator for decalcification.

MANUAL OPERATION

1. Turn the SELECTOR SWITCH (3) to the desired mode. The LED above the manual key lights.
2. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
3. Press the TIME ARROW KEYS (5) to set the stage one cook time.
4. Press the STAGE TWO KEY (11).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.

5. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
6. Press the TIME ARROW KEYS (5) to set the stage two cook time.
7. Press the START KEY (14) to begin the cook cycle. The STAGE ONE LED (9) lights. The TIME DISPLAY (4) counts down the stage one cook time.

   If stage two is selected an alarm sounds at the end of stage one. The time display counts down the stage two cook time.

8. When all cook stages are complete the TIME DISPLAY (4) flashes 00:00, the TEMPERATURE DISPLAY (6) flashes 0 and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm. The control maintains the stage one cook temperature.
9. Turn the SELECTOR SWITCH (3) to *OFF* to shut down the oven/steamer.

NOTE: Time and temperature settings may be changed at any time during manual operation. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

PROGRAMMED OPERATION

NOTE: See page 3–12 for programming instructions.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the desired PRODUCT KEY (12). The LED above the selected key lights.
3. Press the START KEY (14) to begin the cook cycle. The STAGE ONE LED (9) lights. The TIME DISPLAY (4) counts down the stage one cook time.

   NOTE: Press the STOP KEY (15) once to pause an active stage one cycle. Press the START KEY (14) to resume.

   NOTE: Press the STOP KEY (15) twice to cancel an active stage one cycle.

4. An alarm sounds at the end of stage one The time display counts down the stage two cook time.

   NOTE: Press the STOP KEY (15) once to cancel an active stage two cycle. Stage two cycles cannot be paused.

5. When all cook stages are complete, the TIME DISPLAY (4) flashes 00:00, the TEMPERATURE DISPLAY (6) flashes 0 and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm. The control maintains the stage one cook temperature.

PROGRAMMING THE PRODUCT KEYS

NOTE: Each product key can hold two programs: one for steam and one for hot air/combi. Hot air programs can be used in combi.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the desired PRODUCT KEY (12).
3. Press and hold the PROGRAM KEY (16) for five seconds. The control beeps. The product key LED and STAGE ONE LED (9) light.
4. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
5. Press the TIME ARROW KEYS (5) to set the stage one cook time.
6. Press the STAGE TWO KEY (11).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
7. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
8. Press the TIME ARROW KEYS (5) to set the stage two cook time.
9. Press and hold the PROGRAM KEY (16) to save the program settings.

PROGRAMMING THE MANUAL KEY

NOTE: The manual key may be used for manual cooking and programmed for two products, one for steam and one for hot air/combi. Hot air programs can be used in combi.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the MANUAL KEY (13). The LED above the manual key lights.
3. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
4. Press the TIME ARROW KEYS (5) to set the stage one cook time.
5. Press the STAGE TWO KEY (11).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
6. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
7. Press the TIME ARROW KEYS (5) to set the stage two cook time.
8. Press and hold the PROGRAM KEY (16) to save the program settings.

NOTE: Time and temperature settings may be changed at any time during operation of a programmed manual key. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

BC14 STANDARD CONTROL

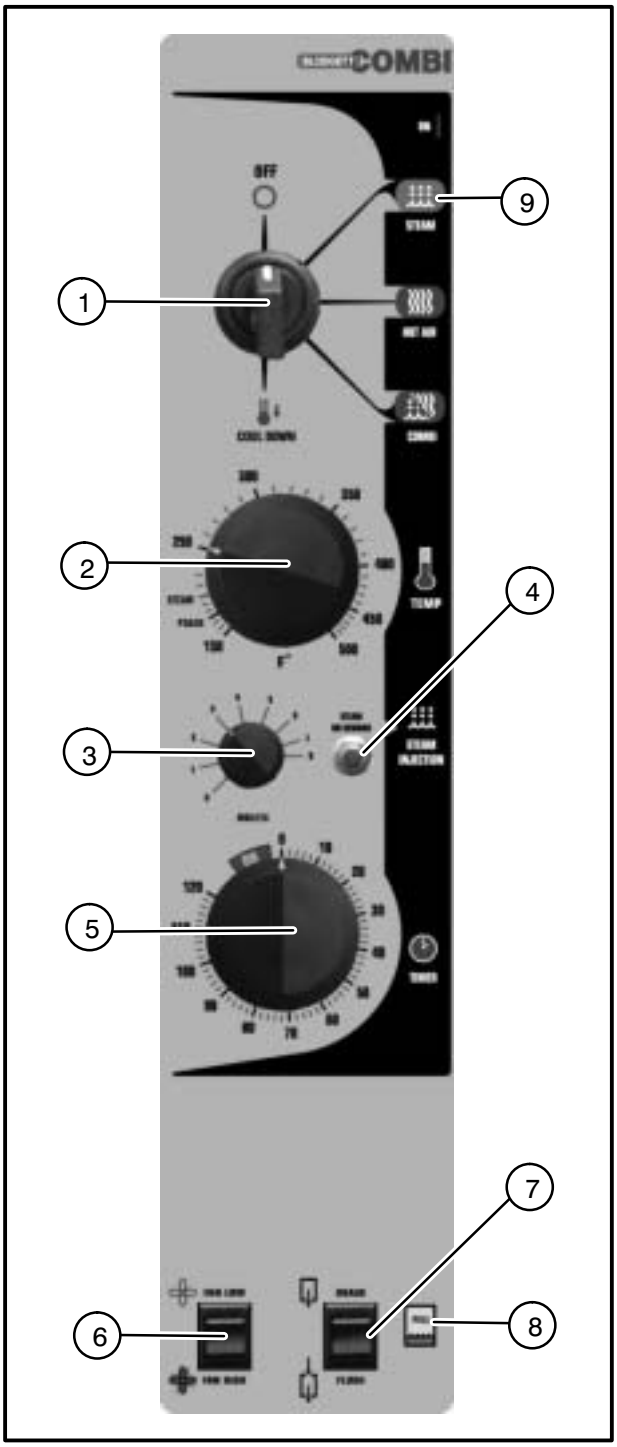


FIGURE 3

CONTROLS IDENTIFICATION

1. **MODE SELECTOR SWITCH** – turns power to the oven on or off. Allows selection of Steam, Hot Air, Combi or Cool Down Modes.
2. **TEMPERATURE DIAL** – used to set desired cooking temperature.
3. **STEAM INJECTION TIMER** – used to set steam time
4. **STEAM ON DEMAND SWITCH** – used to initiate steam injection cycle
5. **TIMER DIAL** – used to set desired cook time.
6. **FAN SPEED SWITCH** – used to select low or high speed.
7. **FLUSH/DRAIN SWITCH** – used to flush/drain the steam generator for decalcification.

   NOTE: BC14DS, the direct steam unit, does not have a flush/drain switch
8. **FILL LAMP** – illuminated until the steam generator is filled with water

   NOTE: BC14DS, the direct steam unit, does not have a fill lamp.
9. **STEAM LAMP** – illuminated when steam is being added to cooking process

OPERATION

1. Turn the MODE SELECTOR Switch (1) to the desired function.
2. Set the TIMER (5) for the desired cooking time or set it to *ON*. The buzzer sounds and the appliance shuts off when the time has expired.
3. For the HOT AIR and COMBI modes, set the TEMPERATURE Dial (2) to the desired cook temperature.

   NOTE: The optimum temperature for Combi mode is 300-350 °F (149-177 °C).

   For STEAM mode set the TEMPERATURE Dial (2) no higher than 212°F (100°C).

   NOTE: For steaming use 212 °F (100 °C). For poaching turn the temperature dial to the POACH position, 180 °F (82 °C).
4. The selected mode operates automatically. The temperature, time and mode can be altered at any time during the cooking process. The operation can be stopped by the use of the Mode Selector Switch or by opening the door.
5. At the end of the specified time period, the buzzer sounds and the appliance will shut off automatically. Move the TIMER (5) to the *ON* position to stop the buzzer and restart the appliance in a continuous on mode.
6. To cool down the oven cavity, switch the MODE SELECTOR Switch (1) to COOL DOWN. In the Cool Down mode neither the temperature dial or the timer will be operational.

   NOTE: The unit can be cooled down rapidly for steaming, cleaning, etc. Open the dor wide and select the cool down mode. The oven will cool from 350—212 °F (177—100 °C) in approximately two minutes.
7. The mode selector switch is also the main power switch. In the OFF position the appliance is not operational.

Steam on Demand

Steam on Demand is helpful in many ways. The steam injection allows a much faster, consistent, even heat transfer. It also increases product moisture and reduces shrinkage while cooking faster and helps the oven temperature recover faster. Steam on Demand allows for Combi Frying oven ready breaded foods to perfection and crusty breads are a breeze.

Steam can be introduced at any point during the cooking process as follows:

1. Use the STEAM INJECTION TIMER (3) to set the desired steam time.
2. Press the STEAM ON DEMAND SWITCH (4).

The following example demonstrates how steam injection can be used with breads to form a superior crust:

1. Preheat oven to 350°F (177°C) in the Combi mode.
2. Load product into the oven.
3. Set the fan to low speed.
4. Set the steam injection time for 5 minutes.
5. Set the TIMER (5) for the desired total cooking time for the product.
6. Press the STEAM ON DEMAND SWITCH (4).

Here is an example of Combi Frying breaded foods:

1. Preheat oven to 375°F (191°C).
2. Load product into oven on wire racks or perforated pans.
3. Set TIMER (5) for 10 minutes.
4. Set STEAM ON DEMAND (4) for 3 minutes.
5. Remove product from oven when time expires.

NOTE: More or less time may be added depending on portion size and oven loads.

BC14 OPTIONAL COOK & HOLD

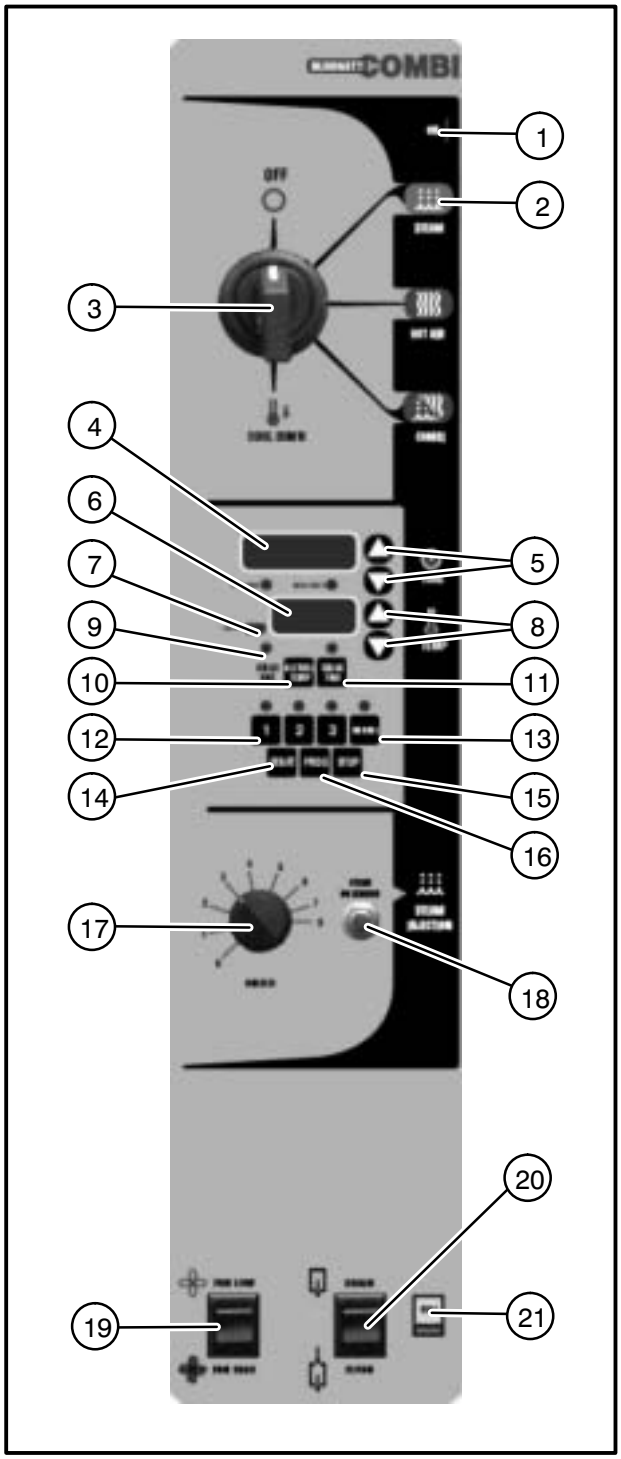


FIGURE 4

CONTROLS IDENTIFICATION

1. **POWER ON LIGHT** – when lit indicates power to the unit is turned on.
2. **STEAM LAMP** – illuminated when steam is being added to cooking process
3. **MODE SELECTOR SWITCH** – controls power to the oven and selection of steam, hot air and combi modes. The convection fan runs with the switch in steam, hot air, combi or cool down.
4. **TIME DISPLAY** – gives cook time.
5. **TIME ARROW KEYS** – press to enter cook time from 00:00 to 99:59.
6. **TEMPERATURE DISPLAY** – gives cook temperature.
7. **HEAT LIGHT** – when lit indicates hot air or steam is in operation.
8. **TEMPERATURE ARROW KEYS** – press to enter cook temperature from 120–212°F (48–100°C) for steam and 140–500°F (60–260°C) for hot air/combi.
9. **STAGE ONE LED** – when lit indicates operation or programming of stage one for the current product. Cook cycles may contain one or two different stages.
10. **ACTUAL TEMP KEY** – press to display actual oven/steamer temperature
11. **STAGE TWO KEY** – press to enter stage two cook time and temperature.
12. **PRODUCT KEYS** – three programmable keys.
13. **MANUAL PRODUCT KEY** – default product key used for manual and programmed cooking.
14. **START KEY** – press to begin a cook cycle.
15. **STOP KEY** – press to silence audible alarms and pause or cancel cook cycles.
16. **PROGRAM KEY** – press to enter programming mode and save programmed settings.
17. **STEAM INJECTION TIMER** – used to set steam time
18. **STEAM ON DEMAND SWITCH** – used to initiate steam injection cycle

19. **FAN SPEED SWITCH** – used to select low or high speed.
20. **FLUSH/DRAIN SWITCH** – used to flush/drain the steam generator for decalcification.

    NOTE: BC14DS, the direct steam unit, does not have a flush/drain switch

21. **FILL LAMP** – illuminated until the steam generator is filled with water

    NOTE: BC14DS, the direct steam unit, does not have a fill lamp.

MANUAL OPERATION

1. Turn the SELECTOR SWITCH (3) to the desired mode. The LED above the manual key lights.
2. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
3. Press the TIME ARROW KEYS (5) to set the stage one cook time.
4. Press the STAGE TWO KEY (11).

    NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

    NOTE: If stage two is not required enter a cook time of 00:00.

5. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
6. Press the TIME ARROW KEYS (5) to set the stage two cook time.
7. Press the START KEY (14) to begin the cook cycle. The STAGE ONE LED (9) lights. The TIME DISPLAY (4) counts down the stage one cook time.

    If stage two is selected an alarm sounds at the end of stage one. The time display counts down the stage two cook time.

8. When all cook stages are complete the TIME DISPLAY (4) flashes 00:00, the TEMPERATURE DISPLAY (6) flashes 0 and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm. The control maintains the stage one cook temperature.
9. Turn the SELECTOR SWITCH (3) to *OFF* to shut down the oven/steamer.

NOTE: Time and temperature settings may be changed at any time during manual operation. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

PROGRAMMED OPERATION

NOTE: See page 3–12 for programming instructions.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the desired PRODUCT KEY (12). The LED above the selected key lights.
3. Press the START KEY (14) to begin the cook cycle. The STAGE ONE LED (9) lights. The TIME DISPLAY (4) counts down the stage one cook time.

    NOTE: Press the STOP KEY (15) once to pause an active stage one cycle. Press the START KEY (14) to resume.

    NOTE: Press the STOP KEY (15) twice to cancel an active stage one cycle.

4. An alarm sounds at the end of stage one The time display counts down the stage two cook time.

    NOTE: Press the STOP KEY (15) once to cancel an active stage two cycle. Stage two cycles cannot be paused.

5. When all cook stages are complete, the TIME DISPLAY (4) flashes 00:00, the TEMPERATURE DISPLAY (6) flashes 0 and an audible alarm sounds. Press the STOP KEY (15) to silence the alarm. The control maintains the stage one cook temperature.

STEAM ON DEMAND

Steam on Demand is helpful in many ways. The steam injection allows a much faster, consistent, even heat transfer. It also increases product moisture and reduces shrinkage while cooking faster and helps the oven temperature recover faster. Steam on Demand allows for Combi Frying oven ready breaded foods to perfection and crusty breads are a breeze.

Steam can be introduced at any point during the cooking process as follows:

1. Use the STEAM INJECTION TIMER (17) to set the desired steam time.
2. Press the STEAM ON DEMAND SWITCH (18).

The following example demonstrates how steam injection can be used with breads to form a superior crust:

1. Preheat oven to 350°F (177°C) in the Combi mode.
2. Load product into the oven.
3. Set the fan to low speed.
4. Set the steam injection time for 5 minutes.
5. Set the TIME ARROW KEYS (5) for the desired total cooking time for the product.
6. Press the STEAM ON DEMAND SWITCH (18).

Here is an example of Combi Frying breaded foods:

1. Preheat oven to 375°F (191°C).
2. Load product into oven on wire racks or perforated pans.
3. Set TIME ARROW KEYS (5) for 10 minutes.
4. Set STEAM ON DEMAND (18) for 3 minutes.
5. Remove product from oven when time expires.

NOTE: More or less time may be added depending portion size and oven loads.

PROGRAMMING THE PRODUCT KEYS

NOTE: Each product key can hold two programs: one for steam and one for hot air/combi. Hot air programs can be used in combi.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the desired PRODUCT KEY (12).
3. Press and hold the PROGRAM KEY (16) for five seconds. The control beeps. The product key LED and STAGE ONE LED (9) light.
4. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
5. Press the TIME ARROW KEYS (5) to set the stage one cook time.
6. Press the STAGE TWO KEY (11).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
7. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
8. Press the TIME ARROW KEYS (5) to set the stage two cook time.
9. Press and hold the PROGRAM KEY (16) to save the program settings.

PROGRAMMING THE MANUAL KEY

NOTE: The manual key may be used for manual cooking and programmed for two products, one for steam and one for hot air/combi. Hot air programs can be used in combi.

1. Turn the SELECTOR SWITCH (3) to the desired mode.
2. Press the MANUAL KEY (13). The LED above the manual key lights.
3. Press the TEMPERATURE ARROW KEYS (8) to set the stage one cook temperature.
4. Press the TIME ARROW KEYS (5) to set the stage one cook time.
5. Press the STAGE TWO KEY (11).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
6. Press the TEMPERATURE ARROW KEYS (8) to set the stage two cook temperature.
7. Press the TIME ARROW KEYS (5) to set the stage two cook time.
8. Press and hold the PROGRAM KEY (16) to save the program settings.

NOTE: Time and temperature settings may be changed at any time during operation of a programmed manual key. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

BCS6 STANDARD CONTROLS

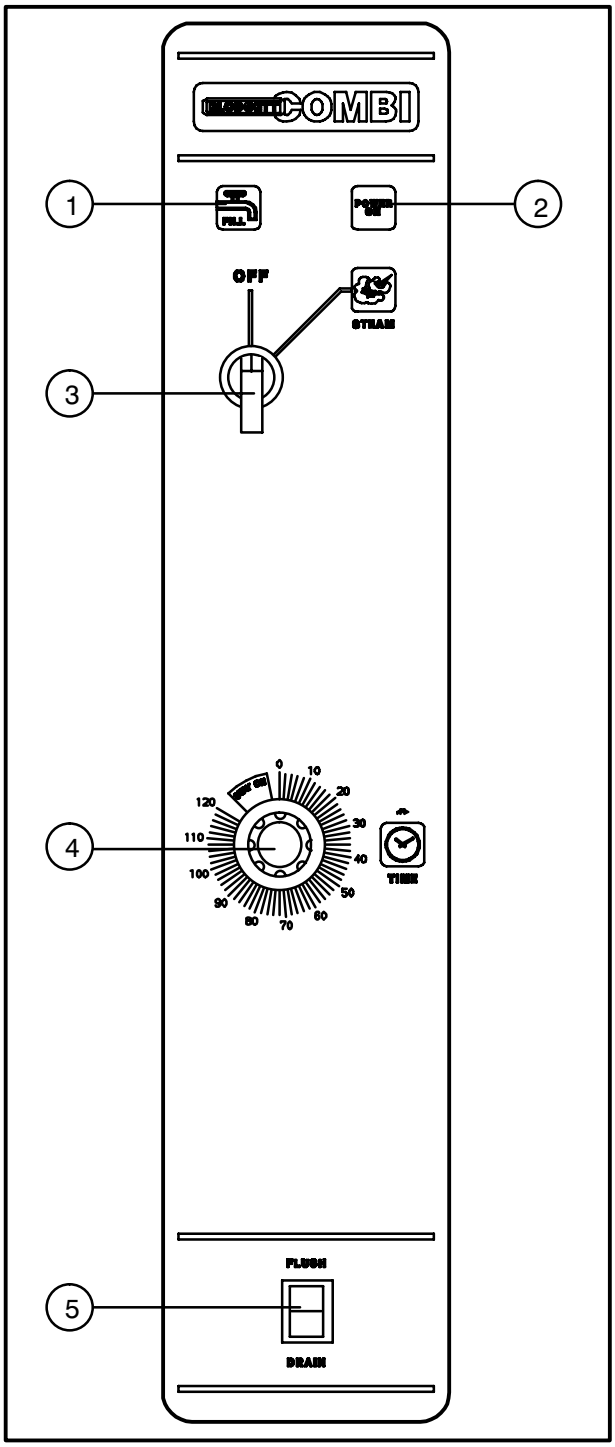


FIGURE 5

CONTROLS IDENTIFICATION

1. LOW WATER FILL LIGHT – during the fill cycle, this light remains on until the water in the steam generator is at the proper level and up to temperature. During normal operation the light should not be on. If the light comes on, check the water level in the steam generator.
2. POWER ON LIGHT – Indicates the unit is in Steam mode.
3. MODE SELECTOR SWITCH – Turns power to the steamer on or off. Allows selection of steam mode.
4. TIMER DIAL – Used to set desired steam time. Some models may be supplied with a push button reset switch.
5. FLUSH/DRAIN SWITCH – Used to flush/drain the steam generator during decalcification.

OPERATION

1. Turn the mode selector switch to STEAM.
2. The green POWER Indicator lamp on the front control panel lights.
3. The steam generator flushes and drain automatically for 75 seconds if the unit has been off for at least 5 hours.
4. The steam generator begins to fill. After two minutes, the FILL indicator lamp on the front control panel blinks. The convection blower and POWER lamp turn off.
5. When the steam generator is filled to the proper level, the convection blower, interior lights and POWER indicator lamp turn on.
6. Steam fills the cavity and is controlled by a non-accessible internal thermostat.

BCS6 PUSH BUTTON "POWER SAVER" CONTROL

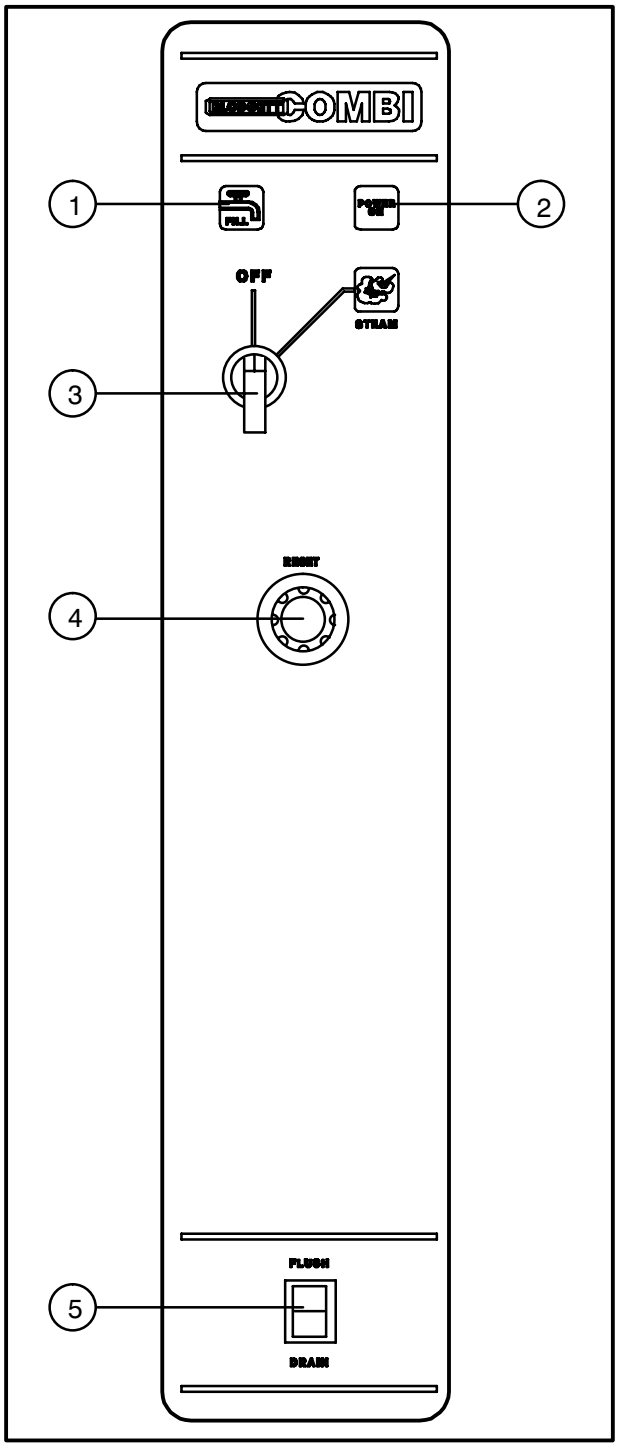


FIGURE 6

CONTROLS IDENTIFICATION

1. LOW WATER FILL LIGHT – during the fill cycle, this light remains on until the water in the steam generator is at the proper level and up to temperature. During normal operation the light should not be on. If the light comes on, check the water level in the steam generator.
2. POWER ON LIGHT – Indicates the unit is in Steam mode.
3. MODE SELECTOR SWITCH – Turns power to the steamer on or off. Allows selection of steam mode.
4. RESET PUSH BOTTON – Turns on steamer when door is closed. Must be pushed to start steamer every time the door is opened.
5. FLUSH/DRAIN SWITCH – Used to flush/drain the steam generator during decalcification.

OPERATION

1. Turn the mode selector switch to STEAM.
2. The green POWER Indicator lamp on the front control panel lights.
3. With the door closed, push and release the RESET button. The steamer comes one and begins steaming.
4. Open the door to shut off the steamer.

CNV-14 STANDARD CONTROLS

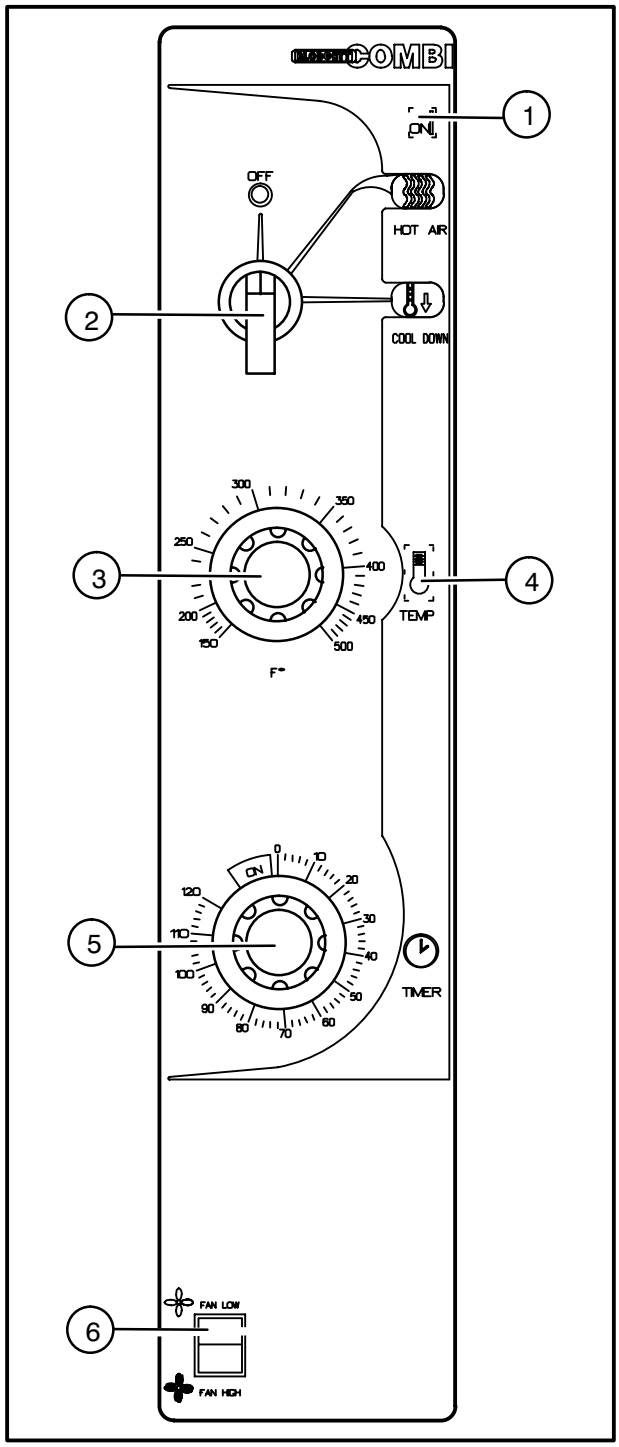


FIGURE 7

CONTROLS IDENTIFICATION

1. **POWER ON LIGHT** – when lit indicates power to the unit is turned on.
2. **SELECTOR SWITCH** – allows selection of Hot Air or Cool Down Mode.
3. **TEMPERATURE DIAL** – used to set desired cooking temperature.
4. **HEATING INDICATOR LIGHT** – lights when the Hot Air heating is in operation.
5. **TIMER DIAL** – used to set desired cook time.
6. **FAN SPEED SWITCH** – used to select LOW or HIGH speed

OPERATION

1. Turn the SELECTOR switch (2) to *HOT AIR*.
2. Load product into the oven when ready.
3. Turn the TEMPERATURE DIAL (3) to the desired temperature.
4. Turn the TIMER DIAL (5) to the desired cook time.
5. At the end of the specified time period, the buzzer sounds and the appliance shuts off automatically. Move the timer to the *STAY ON* position to stop the buzzer and restart the unit.
6. Turn the SELECTOR switch (2) to the *COOL-DOWN* position.

CNV-14 OPTIONAL COOK & HOLD

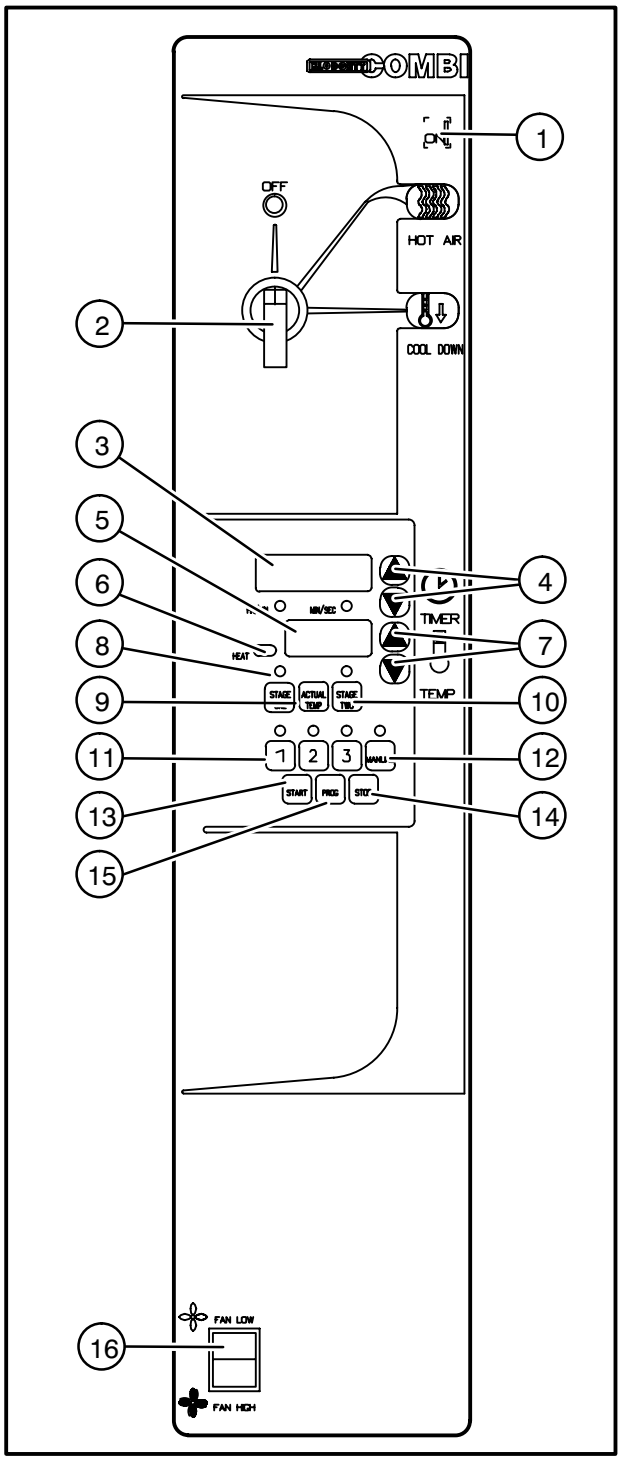


FIGURE 8

CONTROLS IDENTIFICATION

1. **POWER ON LIGHT** – when lit indicates power to the unit is turned on.
2. **MODE SELECTOR SWITCH** – controls power to the oven and selection of hot air and cool down modes. The convection fan runs with the switch in hot air or cool down.
3. **TIME DISPLAY** – gives cook time.
4. **TIME ARROW KEYS** – press to enter cook time from 00:00 to 99:59.
5. **TEMPERATURE DISPLAY** – gives cook temperature.
6. **HEAT LIGHT** – when lit indicates hot air is in operation.
7. **TEMPERATURE ARROW KEYS** – press to enter cook temperature from 140–500°F (60–260°C).
8. **STAGE ONE LED** – when lit indicates operation or programming of stage one for the current product. Cook cycles may contain one or two different stages.
9. **ACTUAL TEMP KEY** – press to display actual oven temperature
10. **STAGE TWO KEY** – press to enter stage two cook time and temperature.
11. **PRODUCT KEYS** – three programmable keys.
12. **MANUAL PRODUCT KEY** – default product key used for manual and programmed cooking.
13. **START KEY** – press to begin a cook cycle.
14. **STOP KEY** – press to silence audible alarms and pause or cancel cook cycles.
15. **PROGRAM KEY** – press to enter programming mode and save programmed settings.
16. **FAN SPEED SWITCH** – used to select LOW or HIGH speed

MANUAL OPERATION

1. Turn the SELECTOR SWITCH (2) to *HOT AIR*. The LED above the manual key lights.
2. Press the TEMPERATURE ARROW KEYS (7) to set the stage one cook temperature.
3. Press the TIME ARROW KEYS (4) to set the stage one cook time.
4. Press the STAGE TWO KEY (10).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
5. Press the TEMPERATURE ARROW KEYS (7) to set the stage two cook temperature.
6. Press the TIME ARROW KEYS (4) to set the stage two cook time.
7. Press the START KEY (13) to begin the cook cycle. The STAGE ONE LED (8) lights. The TIME DISPLAY (3) counts down the stage one cook time.

   If stage two is selected an alarm sounds at the end of stage one. The time display counts down the stage two cook time.
8. When all cook stages are complete the TIME DISPLAY (3) flashes 00:00, the TEMPERATURE DISPLAY (5) flashes 0 and an audible alarm sounds. Press the STOP KEY (14) to silence the alarm. The control maintains the stage one cook temperature.
9. Turn the SELECTOR SWITCH (2) to *OFF* to shut down the oven.

NOTE: Time and temperature settings may be changed at any time during manual operation. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

PROGRAMMED OPERATION

NOTE: See page 3–18 for programming instructions.

1. Turn the SELECTOR SWITCH (2) to *HOT AIR*.
2. Press the desired PRODUCT KEY (11). The LED above the selected key lights.
3. Press the START KEY (13) to begin the cook cycle. The STAGE ONE LED (8) lights. The TIME DISPLAY (3) counts down the stage one cook time.

   NOTE: Press the STOP KEY (14) once to pause an active stage one cycle. Press the START KEY (13) to resume.

   NOTE: Press the STOP KEY (14) twice to cancel an active stage one cycle.
4. An alarm sounds at the end of stage one The time display counts down the stage two cook time.

   NOTE: Press the STOP KEY (14) once to cancel an active stage two cycle. Stage two cycles cannot be paused.
5. When all cook stages are complete, the TIME DISPLAY (3) flashes 00:00, the TEMPERATURE DISPLAY (5) flashes 0 and an audible alarm sounds. Press the STOP KEY (14) to silence the alarm. The control maintains the stage one cook temperature.

PROGRAMMING THE PRODUCT KEYS

1. Turn the SELECTOR SWITCH (2) to *HOT AIR*.
2. Press the desired PRODUCT KEY (11).
3. Press and hold the PROGRAM KEY (15) for five seconds. The control beeps. The product key LED and STAGE ONE LED (8) light.
4. Press the TEMPERATURE ARROW KEYS (7) to set the stage one cook temperature.
5. Press the TIME ARROW KEYS (4) to set the stage one cook time.
6. Press the STAGE TWO KEY (10).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
7. Press the TEMPERATURE ARROW KEYS (7) to set the stage two cook temperature.
8. Press the TIME ARROW KEYS (4) to set the stage two cook time.
9. Press and hold the PROGRAM KEY (15) to save the program settings.

PROGRAMMING THE MANUAL KEY

NOTE: The manual key may be used for manual and programmed cooking.

1. Turn the SELECTOR SWITCH (2) to *HOT AIR*.
2. Press the MANUAL KEY (12). The LED above the manual key lights.
3. Press the TEMPERATURE ARROW KEYS (7) to set the stage one cook temperature.
4. Press the TIME ARROW KEYS (4) to set the stage one cook time.
5. Press the STAGE TWO KEY (10).

   NOTE: Stage two can be used for either a hold mode or a second cook temperature. Example: Cook meats or poultry at a low temperature for maximum moisture retention, then set the second stage for browning. To use the second stage for holding, you must set an appropriate hold time for the unit to count down from.

   NOTE: If stage two is not required enter a cook time of 00:00.
6. Press the TEMPERATURE ARROW KEYS (7) to set the stage two cook temperature.
7. Press the TIME ARROW KEYS (4) to set the stage two cook time.
8. Press and hold the PROGRAM KEY (15) to save the program settings.

NOTE: Time and temperature settings may be changed at any time during operation of a programmed manual key. Press the time arrow keys to change the cook time. Press the temperature arrow keys to change the cook temperature.

OPTIONAL MEAT PROBE

CONTROLS IDENTIFICATION

1. MEAT PROBE SWITCH

   Controls power to the meat probe.

2. MEAT PROBE CONTROL

   Use to set the desired probe temperature. Indicates the actual temperature of the product

3. MEAT PROBE CONNECTOR

   Receptacle for the plug in meat probe.

   NOTE: For sanitation it is recommended that the meat probe remain plugged into the front panel receptacle at all times.

OPERATION

Measuring the product core temperatures during long roasting periods is very practical. It is especially important for products such as Roast Beef to reach a specific internal temperture.

Place the probe through to the middle of the product's thickest section. Be sure the probe does not touch any bone and the tip is not in a fat pocket. These conditions can cause inaccurate readings.

1. Set the MODE SELECTOR Switch to the desired function.
2. Turn the MEAT PROBE Switch (1) to *ON*.
3. To set the desired core temperature press the blue SET BUTTON (4) on the MEAT PROBE CONTROL (2).

   Use the up arrow key (6) to increase the setpoint temperature. Use the down arrow key (5) to decrease the setpoint temperature.

   Press the set button again to store the setpoint.
4. Set the TIMER to *STAY ON*. The cooking process runs automatically.

   When the selected core temperature is reached, the buzzer will sound and the appliance shuts off automatically.

   The temperature and mode can by changed at any time during the process.
5. Shut the appliance off by setting the mode switch to *OFF*.

NOTE: When setting the internal temperature, be sure to allow for carry-over cooking after the roast is removed from the oven.

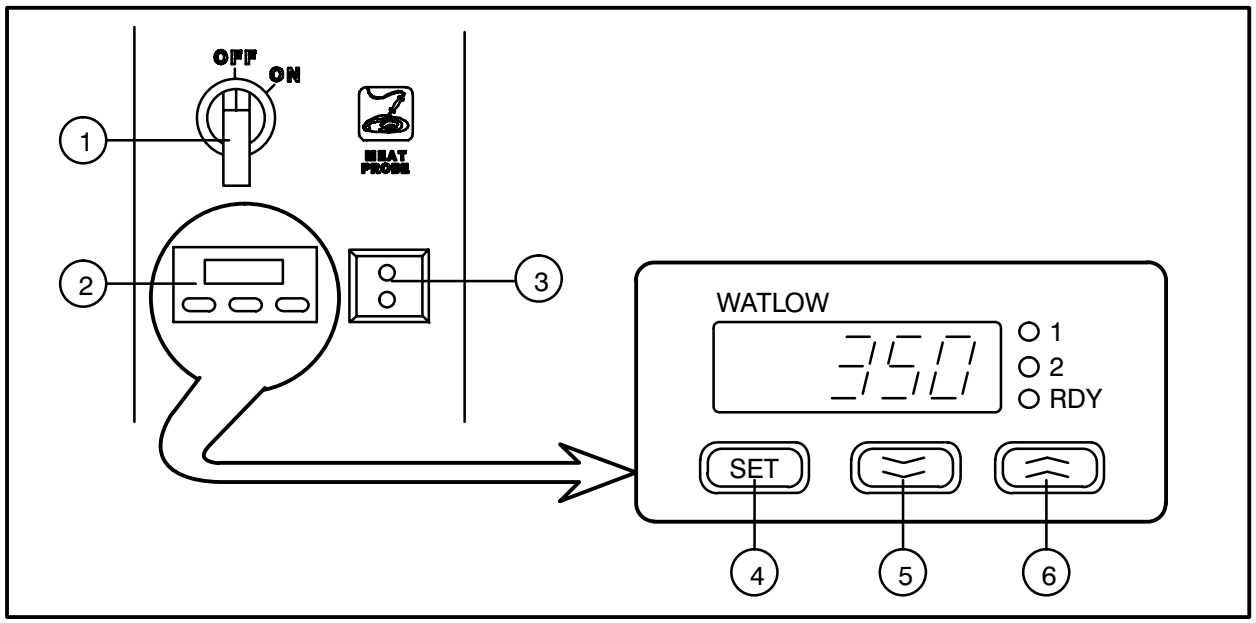


FIGURE 9

SYNERGY OPTIONAL MEAT PROBE

CONTROLS IDENTIFICATION

1. MEAT PROBE SWITCH – controls power to the meat probe.
2. MEAT PROBE CONTROL – use to set the desired probe temperature. Indicates the actual temperature of the product
3. MEAT PROBE CONNECTOR – receptacle for the plug in meat probe.

   NOTE: For sanitation purposes it is recommended that the meat probe remain plugged into the front panel receptacle at all times.

OPERATION

Measuring the product core temperatures during long roasting periods is very practical. It is especially important for products such as Roast Beef to reach a specific internal temperture.

Place the probe through to the middle of the product's thickest section. Be sure the probe does not touch any bone and the tip is not in a fat pocket. These conditions can cause inaccurate readings.

1. Set the MODE SELECTOR Switch to the desired function.
2. Turn the MEAT PROBE Switch (1) to *ON*.
3. To set the desired core temperature press and hold the * BUTTON (4) on the MEAT PROBE CONTROL (2).

   Use the up arrow key (6) to increase the setpoint temperature. Use the down arrow key (5) to decrease the setpoint temperature.
4. Set the TIMER to *STAY ON*. The cooking process runs automatically.

   When the selected core temperature is reached, the buzzer will sound and the appliance shuts off automatically.

   The temperature and mode can by changed at any time during the process.

   NOTE: The Steam On Demand feature may be used with the meat probe.
5. Shut the appliance off by setting all switches to *OFF*.

NOTE: When setting the internal temperature, be sure to allow for carry-over cooking after the roast is removed from the oven

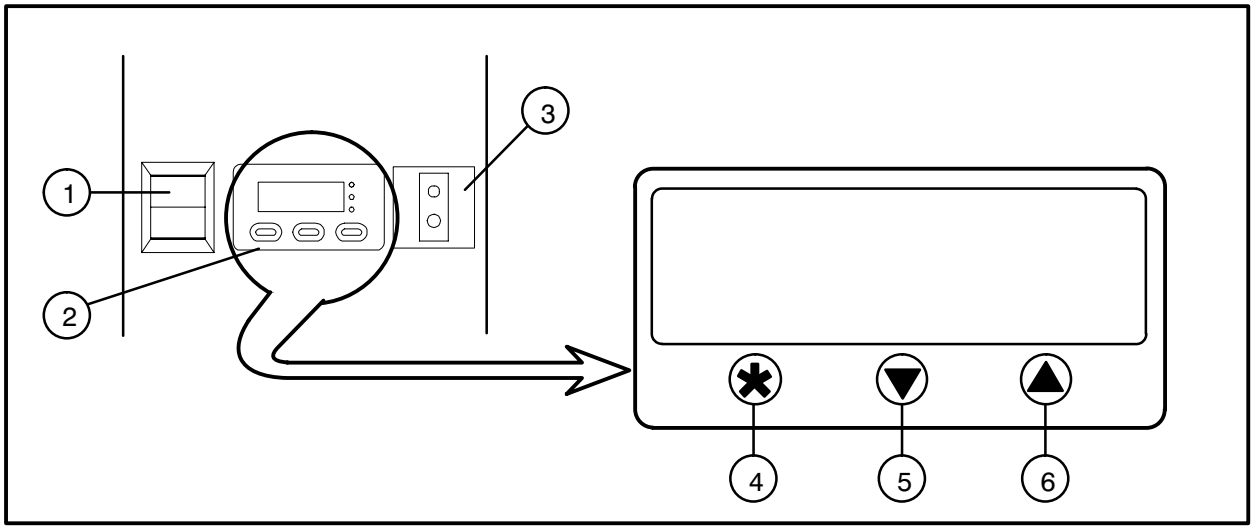


FIGURE 10

CHAPTER 2

CONVEYOR OVEN CONTROLS

U.E. TEMPERATURE CONTROLLER WITH OPEN LOOP DC DRIVE SYSTEM

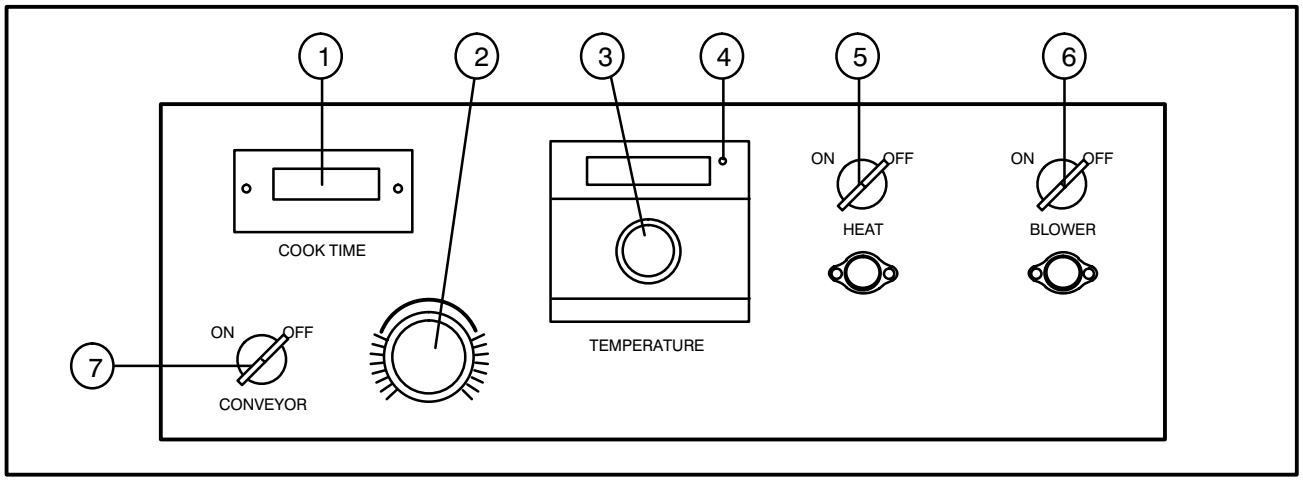


FIGURE 1

CONTROL DESCRIPTION

1. COOK TIME DISPLAY – Displays the belt speed.
2. CONVEYOR ADJUSTMENT KNOB – Turn to adjust the conveyor speed.
3. TEMPERATURE CONTROL KNOB – Turn to set cook temperature.
4. HEAT LIGHT – Indicates the control is calling for heat.
5. HEAT SWITCH – Controls power to the burner.
6. BLOWER SWITCH – Controls power to the blowers.
7. CONVEYOR SWITCH – Controls power to the conveyor motor.

CONTROL OPERATION

1. Turn the manual gas valve to the *OPEN* position. This is only necessary on initial start-up.
2. Turn the BLOWER SWITCH (6) to *ON*.
3. Push and turn the TEMPERATURE CONTROL KNOB (3) clockwise to the desired setting.
4. Turn the HEAT SWITCH (5) to *ON*. The burner purge timer will be energized. After approximately thirty (30) seconds, a spark ignites the burner. Initial start may require longer due to air in the gas line.

   *NOTE: If the oven fails to ignite after the thirty (30) second purge, turn the HEAT SWITCH (*5*) to OFF and wait 5 minutes before turning back to ON.*
5. Turn the CONVEYOR SWITCH (7) to *ON*. The conveyor belt starts to travel through the oven. This circuit is independent and can be turned on or off without affecting any other operations. Adjust the conveyor speed as follows:

   Turn the ADJUSTMENT KNOB (2) clockwise to increase speed, counter-clockwise to decrease speed. Turn the knob-lock behind the control knob to hold the desired belt speed
6. Turn the BLOWER (6), CONVEYOR (7) and HEAT (5) SWITCHES to *OFF*. The Cool Down circuit is energized. The blower motor(s) continue to run until the oven temperature is between 135–170°F (57–77°C). The digital temperature display remains lit until the cool down circuit de-energizes.

The oven will hold these parameters daily and will require no further adjustments unless a different product is placed in the oven.

NOTE: Each oven contains different components and must be adjusted individually.

U.E. TEMPERATURE CONTROLLER WITH CLOSED LOOP DC DRIVE

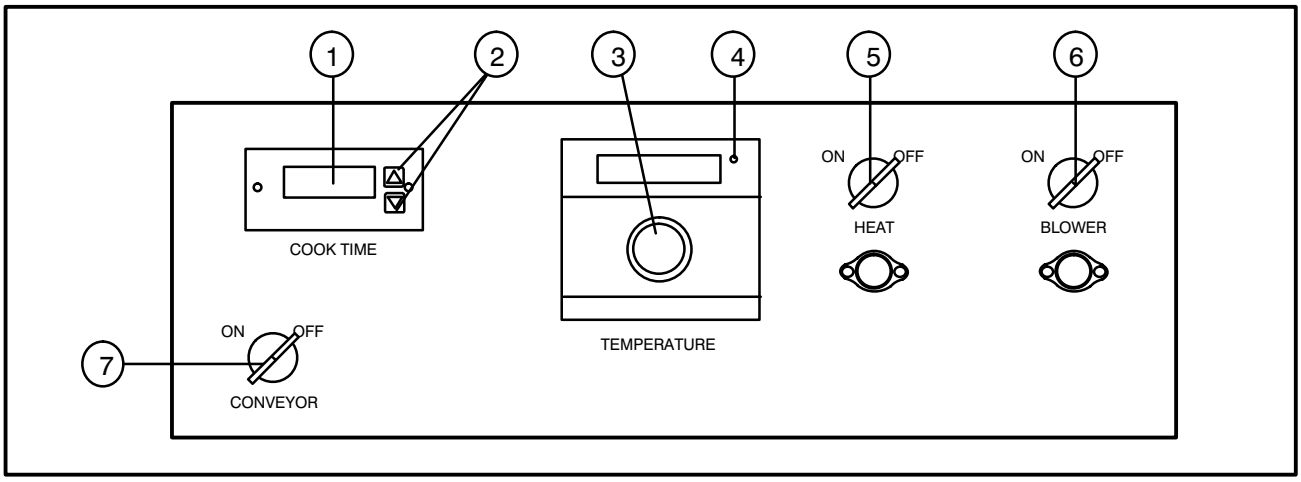


FIGURE 2

CONTROL DESCRIPTION

1. COOK TIME DISPLAY – Displays the belt speed.
2. CONVEYOR ADJUSTMENT KEYS – Press to adjust the conveyor speed.
3. TEMPERATURE CONTROL KNOB – Turn to set cook temperature.
4. HEAT LIGHT – Indicates the control is calling for heat.
5. HEAT SWITCH – Controls power to the burner.
6. BLOWER SWITCH – Controls power to the blowers.
7. CONVEYOR SWITCH – Controls power to the conveyor motor.

CONTROL OPERATION

1. Turn the manual gas valve to the *OPEN* position. This is only necessary on initial start-up.
2. Turn the BLOWER SWITCH (6) to *ON*.
3. Push and turn the TEMPERATURE CONTROL KNOB (3) clockwise to the desired setting.
4. Turn the HEAT SWITCH (5) to *ON*. The burner purge timer will be energized. After approximately thirty (30) seconds, a spark ignites the burner. Initial start may require longer due to air in the gas line.

   *NOTE: If the oven fails to ignite after the thirty (30) second purge, turn the HEAT SWITCH (*5*) to OFF and wait 5 minutes before turning back to ON.*
5. Turn the CONVEYOR SWITCH (7) to *ON*. The conveyor belt starts to travel through the oven. This circuit is independent and can be turned on or off without affecting any other operations. Adjust the conveyor speed as follows:

   Press the UP ARROW (2) to increase the conveyor speed and the DOWN ARROW (2) to decrease the conveyor speed.
6. Turn the BLOWER (6), CONVEYOR (7) and HEAT (5) SWITCHES to *OFF*. The Cool Down circuit is energized. The blower motor(s) continue to run until the oven temperature is between 135–170°F (57–77°C). The digital temperature display remains lit until the cool down circuit de-energizes.

The oven will hold these parameters daily and will require no further adjustments unless a different product is placed in the oven.

NOTE: Each oven contains different components and must be adjusted individually.

ATHENA TEMPERATURE CONTROLLER WITH OPEN LOOP DC DRIVE

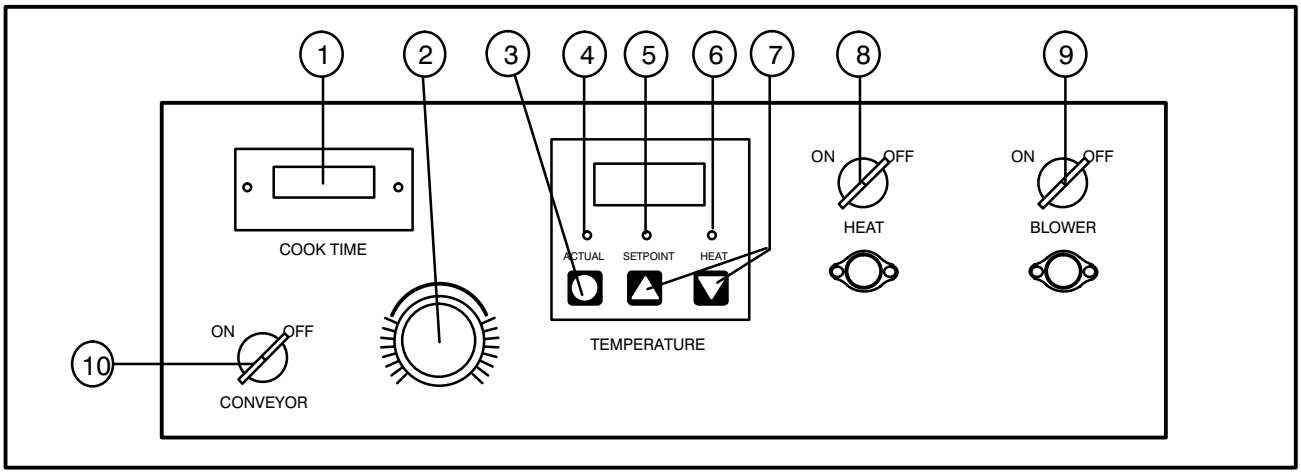


FIGURE 3

CONTROL DESCRIPTION

1. COOK TIME DISPLAY — Gives the belt speed.
2. CONVEYOR ADJUSTMENT KNOB — Turn to adjust the conveyor speed.
3. ACTUAL TEMPERATURE KEY — Press to display the actual oven temperature.
4. ACTUAL TEMPERATURE LIGHT — When lit indicates the control is displaying the actual oven temperature.
5. SETPOINT LIGHT — When lit indicates control is displaying desired cook temperature.
6. HEAT LIGHT — When lit indicates that the control is calling for heat.
7. UP and DOWN ARROW KEYS — Used to increase/decrease desired cook temperature.
8. HEAT SWITCH — Controls power to the burner.
9. BLOWER SWITCH — Controls power to the blowers.
10. CONVEYOR SWITCH — Controls power to the conveyor motor.

CONTROL OPERATION

1. Turn the manual gas valve to the *OPEN* position. This is only necessary on initial start-up.
2. Turn the BLOWER SWITCH (9) to *ON*.
3. Press the UP or DOWN ARROW keys (7) to enter the desired cook temperature.
4. Turn the HEAT SWITCH (8) to *ON*.

   NOTE: If the oven fails to ignite after the thirty (30) second purge, turn the blower switch OFF and wait 5 minutes before turning back ON.

5. Press the ACTUAL TEMPERATURE KEY (3). If the actual temperature matches the setpoint the oven is ready to cook.

   NOTE: The display will flash until the actual temperature is within the preset deviation alarm band. The default setting is ± 20°F of the setpoint.

6. Turn the CONVEYOR SWITCH (10) to *ON*. The conveyor belt starts to move. Turn the CONVEYOR ADJUSTMENT KNOB (2) clockwise to increase speed, counter-clockwise to decrease speed. Turn the knob-lock behind the control knob to hold the desired belt speed
7. Turn the BLOWER (6), CONVEYOR (7) and HEAT (8) SWITCHES to *OFF*. The Cool Down circuit is energized. The blower motor(s) continue to run until the oven temperature is between 135—170°F (57—77°C). The digital temperature display remains lit until the cool down circuit de-energizes.

The oven will hold these parameters daily and will require no further adjustments unless a different product is placed in the oven.

NOTE: Each oven contains different components and must be adjusted individually.

ATHENA TEMPERATURE CONTROLLER WITH CLOSED LOOP DC DRIVE

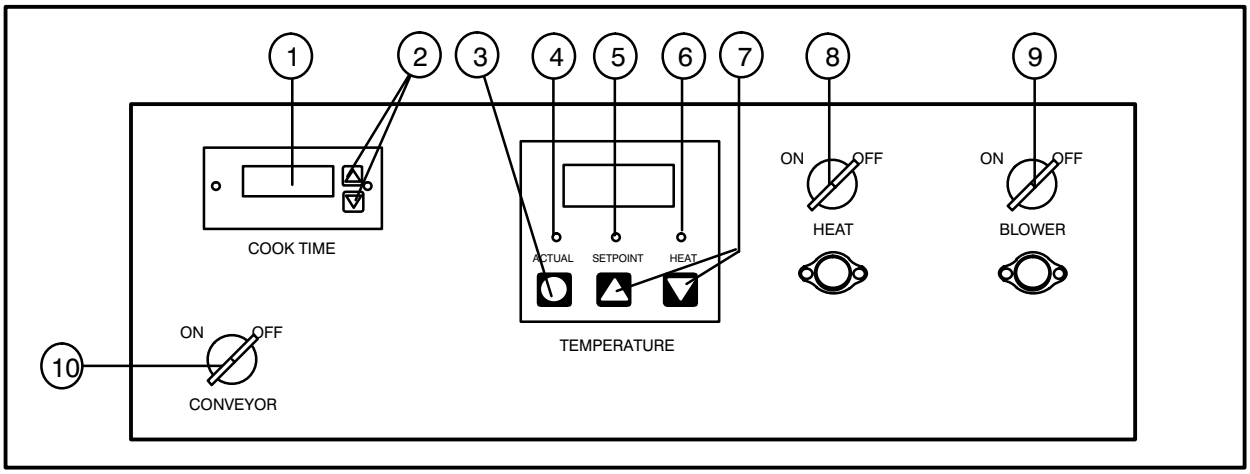


FIGURE 4

CONTROL DESCRIPTION

1. COOK TIME DISPLAY – Gives the belt speed.
2. ACTUAL TEMPERATURE KEY – Press to display the actual oven temperature.
3. CONVEYOR ADJUSTMENT KEYS – Press to adjust the conveyor speed.
4. ACTUAL TEMPERATURE LIGHT – When lit indicates the control is displaying the actual oven temperature.
5. SETPOINT LIGHT – When lit indicates control is displaying desired cook temperature.
6. HEAT LIGHT – When lit indicates that the control is calling for heat.
7. UP and DOWN ARROW KEYS – Used to increase/decrease desired cook temperature.
8. HEAT SWITCH – Controls power to the burner.
9. BLOWER SWITCH – Controls power to the blowers.
10. CONVEYOR SWITCH – Controls power to the conveyor motor.
11. CONVEYOR ADJUSTMENT KNOB – Turn to adjust the conveyor speed.

CONTROL OPERATION

1. Turn the manual gas valve to the *OPEN* position. This is only necessary on initial start-up.
2. Turn the BLOWER SWITCH (9) to *ON*.
3. Press the UP or DOWN ARROW keys (7) to enter the desired cook temperature.
4. Turn the HEAT SWITCH (8) to *ON*.

   NOTE: If the oven fails to ignite after the thirty (30) second purge, turn the blower switch OFF and wait 5 minutes before turning back ON.
5. Press the ACTUAL TEMPERATURE KEY (2). If the actual temperature matches the setpoint the oven is ready to cook.

   NOTE: The display will flash until the actual temperature is within the preset deviation alarm band. The default setting is ± 20°F of the setpoint.
6. Press the UP ARROW (2) to increase the conveyor speed and the DOWN ARROW (2) decreases the conveyor speed.
7. Turn the BLOWER (6), CONVEYOR (7) and HEAT (8) SWITCHES to *OFF*. The Cool Down circuit is energized. The blower motor(s) continue to run until the oven temperature is between 135–170°F (57–77°C). The digital temperature display remains lit until the cool down circuit de-energizes.

The oven will hold these parameters daily and will require no further adjustments unless a different product is placed in the oven.

NOTE: Each oven contains different components and must be adjusted individually.

COMPUTER CONTROLLER

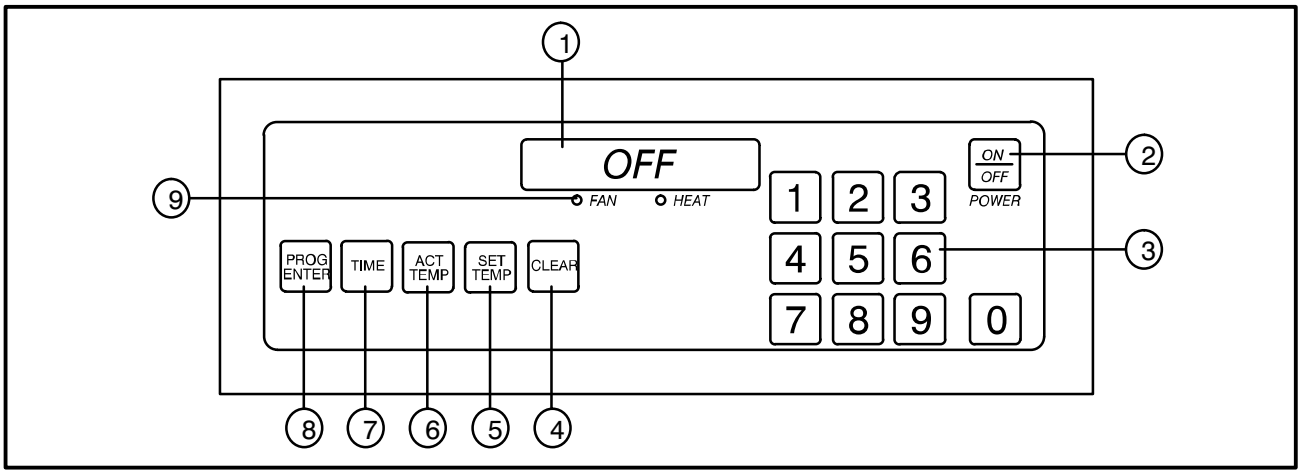


FIGURE 5

CONTROL DESCRIPTION

1. DIGITAL DISPLAY — Displays the time, temperature and controller related information.
2. OVEN ON/OFF — Controls power to the oven.
3. NUMERIC KEYS — Used to enter numerical data in the programming mode.
4. CLEAR KEY — Used to clear the display if an error is made in the programming mode.
5. SET TEMP KEY — Used to view or program the temperature setpoint.
6. ACT TEMP KEY — Used to view the current oven temperature.
7. TIME KEY — Used to view or program the cook time.
8. PROG/ENTER KEY — Used to enter and exit the programming mode. Also used to lock in programmed settings.
9. STATUS LAMPS — When lit indicate that the fan or burners are operating.

⚠ WARNING!!

This oven, supplied with remote control, is equipped with an emergency shut down switch. Should you need to stop the belt, fans, or heat press the emergency switch.

DO NOT use the emergency switch as a GENERAL on/off switch!

CONTROL OPERATION

To turn the oven on:

1. Press and hold the ON/OFF key (2). The display reads *OFF* when the oven is idle.
2. The display flashes *WAIT • LOW • SET • TIME.*
3. The FAN and HEAT status lamps (9) light. The fans begin to run. The heat rises to the programmed temperature. The conveyor belt travels at the programmed speed.

To view the cook time setting:

1. Press the TIME key (7). The LED on the key lights and the display flashes *SET • TIME.*

To display the actual oven temperature:

1. Press the ACT TEMP key (6). The LED on the key lights and the display reads *ACTUAL • °F.*

To view the temperature set point:

1. Press the SET TEMP key (5). The LED on the key lights and the display flashes *SET • TEMP • °F.*

To turn the oven off:

1. Press the ON/OFF key (2). The blower motor(s) continue to run regardless of the controller status until the temperature drops below 180°F (82°C).

PROGRAMMING PROCEDURES

Programming the Cook Time:

1. Press the PROGRAM/ENTER key (8).
2. Press the TIME key (7). The display reads *PROG-? • SET • TIME-? • _ _ _ _.*
3. Use the NUMERIC keys (3) to enter the desired cook time. The display will read the numbers as they are entered. If an error is made, press the CLEAR key (4) and re-enter the number.
4. Press the PROGRAM/ENTER key (8) a second time to lock-in the new time. The new cook time will be stored in the computer's memory.

Programming the Temperature:

1. Press the PROGRAM/ENTER key (8).
2. Press the SET TEMP key (5). The display reads *PROG-? • SET • TEMP-? • _ _ _ _ °F.*
3. Use the NUMERIC keys (3) to enter the desired temperature set point. The control displays the numbers as they are entered. If an error is made, press the CLEAR key (4) and re-enter the number.
4. Press the PROGRAM/ENTER key (8) a second time to lock-in the new temperature. The new temperature setpoint will be stored in the computer's memory.

Operation at the Programmed Settings:

1. Press and hold the ON/OFF key (2).
2. The FAN and HEAT status lamps (9) light. The fans begin to run. The heat rises to the temperature setting stored in the computer's memory. The conveyor belt begins to travel at the timed speed stored in memory.
3. The display will flash *WAIT • LOW • SET • TIME* until the programmed bake temperature is reached. The HEAT lamp (9) will remain lit until the oven reaches the temperature set point.
4. The display reads *READY* and the HEAT lamp (9) goes out.
5. The oven is now ready to accept product.
6. Press and hold the ON/OFF key (2) to turn the oven off. The fans continue to run while the oven cools to a safe temperature.

DISPLAY INFORMATION

- WAIT • *LOW* — indicates that the present oven temperature is lower than the set point temperature. When the oven reaches the set point temperature the display changes to *READY*.
- *READY* — indicates that the oven is ready to accept product.
- *SET • TEMP • mmss* — indicates the current cook time setting.
- *HIGH • TIME* — indicates that the temperature is well above the set point. This usually occurs when moving from a higher to a lower temperature. Wait until the display reads ready before loading product.
- *HIGH • TEMP • LIMIT* — indicates that the oven temperature exceeds the high limit from the 2nd level program. The Over Temperature Alarm buzzer will sound. Shut the oven off and wait for the unit to cool down.
- *HIGH • TEMP • PANEL* — indicates that the control area reaches an excessive temperature. Shut the oven off and wait for the unit to cool down. Error code generally means loose ground wire.
- *PROBE • OPEN • PROBE • SHORT* — indicates that the temperature sensor has failed. The Alarm buzzer sounds. Shut the oven off and contact a service representative.

PLC MANUAL CONTROL

MANUAL CONTROL DESCRIPTION

1. DIGITAL DISPLAY – two line display gives the time, temperature and other control related information.
2. OVEN ON/OFF (ON/STANDBY) – controls power to the oven.
3. TEMPERATURE KEY – press to change the cook temperature.
4. ARROW KEYS – press to change the set time and temperature in the display.
5. TIME KEY – press to change the cook time.
6. ENTER/RESET KEY – press to save new cook time or temperature. Also press to silence the alarm in case of a fault. The alarm will sound every ten seconds until the fault clears.

WARNING!!

This oven, supplied with remote control, is equipped with an emergency shut down switch. Should you need to stop the belt, fans, or heat press the emergency switch.

DO NOT use the emergency switch as a GENERAL on/off switch!

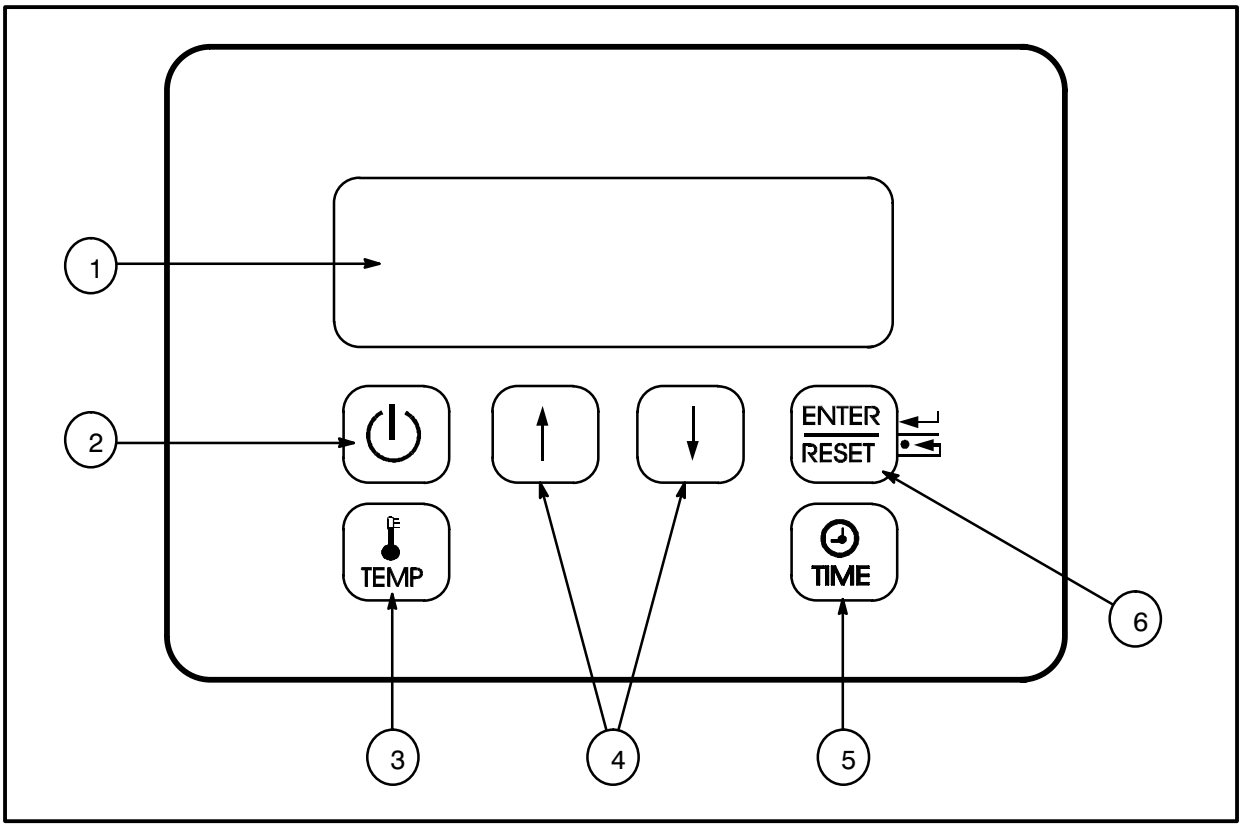


FIGURE 6

OPERATION

NOTE: The following example is in °F. The display will read °C if programmed in celsius.

To turn the oven on:

1. Press the OVEN ON/OFF key (2). The control defaults to the last time and temperature settings used.

   The display reads:

SET TEMP XXXF HEAT COOK TIME XX:XX

   NOTE: HEAT appears in the top line of the display whenever the control calls for heat.

2. The fans begin to run. The conveyor belt begins to travel at the set cook time. The heat rises to the setpoint temperature.
3. When the oven reaches the set temperature, *READY* and *SET TEMP* flash alternately in the top line of the display and an audible alarm sounds.

To change the cook temperature:

1. Press the TEMPERATURE key (3).

   The display reads:

SET POINT TEMP XXXF

2. Press the ARROW keys (4) to scroll to the desired cook temperature.
3. Press the ENTER key (6) to set the new cook temperature.

To change the cook time:

1. Press the TIME key (5).

   The display reads:

SET COOK TIME XX:XX

2. Press the ARROW keys (4) to scroll to the desired cook time.
3. Press the ENTER key (6) to set the new cook time.

To display the actual oven temperature:

1. Press both ARROW keys (4) .

   The display reads:

TEMP XXXF DOWN – EXIT

2. Press the down arrow key to return the display to the setpoint time and temperature.

To turn the oven off:

1. Press the OVEN ON/OFF key (2). The oven is equipped with a cool-down feature for motor shaft and bearing protection. This enables the blower motor(s) to run regardless of the controller status. The blower(s) continue to run until the oven cools to a safe temperature.

PLC PROGRAMMABLE CONTROL

MENU CONTROL DESCRIPTION

1. DIGITAL DISPLAY – two line display gives the time, temperature and other control related information.
2. OVEN ON/OFF (ON/STANDBY) – controls power to the oven.
3. ARROW KEYS – press to change the time and temperature in the display. Also press to scroll through menus during programming.
4. MENU KEYS – programmable product keys. Up to four different time and temperature settings can be saved.
5. ENTER/RESET KEY – press to save settings while programming. Also press to silence the alarm in case of a fault. The alarm will sound every ten seconds until the fault clears.

⚠ WARNING!!

This oven, supplied with remote control, is equipped with an emergency shut down switch. Should you need to stop the belt, fans, or heat press the emergency switch.

DO NOT use the emergency switch as a GENERAL on/off switch!

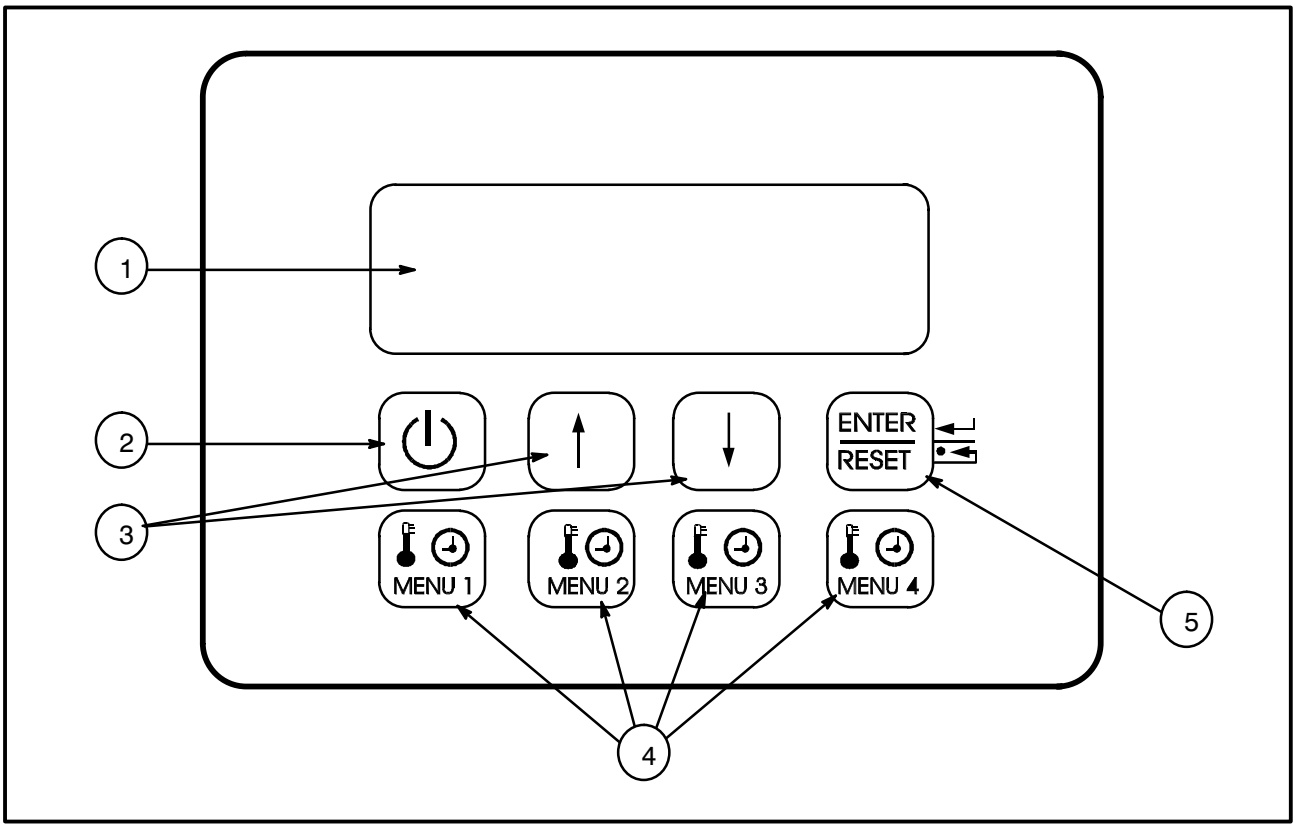


FIGURE 7

MENU PROGRAMMING

NOTE: The following example is in °F. The display will read °C if programmed in celsius.

To enter programming mode:

1. With the oven off, press and hold the UP ARROW key (3) and the ENTER/RESET key (5) simultaneously for approximately three seconds.

   The display reads:

   ```
   ACCESS CODE
   000
   ```

2. Press and hold the UP ARROW key (3) until the bottom line of the display reads *111* (the store access code).
3. Press the ENTER/RESET key (5) to enter the programming mode.

To program the menu keys:

1. The display reads:

   ```
   SELECT MENU KEY
   MENU 1, 2, 3, OR 4
   ```

2. Press the MENU key (4) to be programmed.

   NOTE: For this example we will program menu key 1.

3. The display reads:

   ```
   MENU-1 SELECT TEMP
    XXXF PRESS ENTER
   ```

   Use the ARROW keys (3) to scroll to the desired cook temperature. Press the ENTER key (5) to store the new cook temperature.

4. The display reads:

   ```
   MENU-1 COOK TIME
   XX:XX PRESS ENTER
   ```

   Use the ARROW keys (3) to scroll to the desired cook time. Press the ENTER key (5) to store the new cook time.

5. The display flashes:

   ```
   MENU-1
   PROGRAM DONE
   ```

To exit the programming mode:

1. Press and hold the UP ARROW key (3) and the ENTER/RESET key (5) simultaneously for approximately three seconds.

   NOTE: If no key is pressed for 60 seconds, the control automatically exits the program mode.

OPERATION

1. Press the OVEN ON/OFF key (2). The control defaults to the last time and temperature settings used.

   The display reads:

   ```
   M-X TEMP XXXF HEAT
   COOK TIME XX:XX
   ```

   NOTE: HEAT appears in the top line of the display whenever the control calls for heat.

2. Press the desired MENU key (4).
3. The fans begin to run. The conveyor belt begins to travel at the set cook time. The heat rises to the setpoint temperature.
4. When the oven reaches the set temperature, *READY* and *SET* are displayed. The heat rises to the setpoint temperature. *TEMP* flash alternately in the top line of the display and an audible alarm sounds.

   NOTE: To change the cook time and temperature press any of the other menu keys.

To display the actual oven temperature:

1. Press both ARROW keys (4) .

   The display reads:

   ```
   XXXF
   DOWN – EXIT
   ```

2. Press the down arrow key to return the display to the setpoint time and temperature.

To turn the oven off:

1. Press the OVEN ON/OFF key (2). The oven is equipped with a cool-down feature for motor shaft and bearing protection. This enables the blower motor(s) to run regardless of the controller status. The blower(s) continue to run until the oven cools to a safe temperature.